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ORIGINAL ARTICLES.

THE RELATION BETWEEN THE GROSS ANATOMY OF THE APPENDIX AND APPENDICITIS.¹

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THE anatomic peculiarities of the appendix that affect directly the symptomatology of appendicitis relate especially to the location, direction, and extent of the appendix. The local symptoms are chiefly modified by these characteristics of the organ. The emphatic symptoms belonging to this category may be briefly stated as pain, tenderness, tension, and tumor.

The situation and character of the pain, together with its reflex manifestations, comprise its important elements as modified by the individuality of the diseased appendix causing it. If the pain be dull and throbbing, and be influenced but little, if any, by respiratory movements, the involvement of connective, rather than serous tissue, is indicated. Later in the case, however, the supervention of serious painful phenomena may be slowly or quickly announced.

Appendicitis with primary fibrous-tissue involvement is necessarily rare, as then the appendix is extra-peritoneal, or is completely environed by inflammatory adhesions, the result of repeated attacks. In but three instances of one hundred and forty-four autopsies made for other than appendicular trouble was the appendix found outside of the peritoneal cavity. In one of these it was above and behind the cecum and colon; in another, behind and near the inner border of the colon, extending even to the liver; and in the third it was behind the colon near the outer border. It is in accordance with the well-known law that the character of pain is modified by the kind of tissue involved, to assume that had either of these appendices been diseased, the primary pain would have been of the connective-tissue type, continuing so until peritoneal involvement had ensued, either by extension of the inflammatory process, or of abscess-rupture. It was my good fortune but a few years ago to meet with a well-pronounced case of this kind in Bellevue Hospital. In this instance, a

dull throbbing pain had been present for some time beneath the ascending colon, with tenderness and induration. Suddenly the acute agonizing pain indicative of peritoneal involvement occurred, quickly followed by peritonitis and rapid death. At the time of the consultation I ventured to predict: (1) the presence of a diseased appendix behind the cecum and colon; (2) extensive connective-tissue inflammation and abscess; (3) rupture of the abscess into the peritoneal cavity. The results of the autopsy justified each prediction.

In many cases of recurrent appendicitis the familiar pain of acute attacks is not present at the outset, and may not appear at all; and, too, respiratory movements cause but little, if any, additional infliction. I saw such a case but a few days ago during recovery from a fourth attack, with intervals of one year each. It is, of course, superfluous to say that primary intra-peritoneal appendicitis causes acute pain, for this is the typical manifestation of the disease. It is proper to add, however, that the mobility and length of the appendix have much to do with the severity and extent of the pain, and also with the rapidity of the diffusion of the poisonous products of the disease. All are aware that the appendices of some are comparatively "free" in the peritoneal cavity, their movements between the contiguous intestines being limited only by their mesenteries, or their attachment to the cecum. The free extremities of such as these are often observed extending upward from between the intestinal loops, and at this time can be aptly compared to the erect position of the deadly cobra when prepared to strike.

Let us now glance for a moment at the records attesting the freedom of movement of intra-peritoneal appendices. In sixty-six examinations, twenty-six (40 per cent.) were "free," in that one-half of the entire length was surrounded by peritoneum. The remaining forty had mesenteries varying from three-fourths to more than an inch in length. Surely the length and the freedom of movement of a diseased intra-peritoneal appendix exercises an important influence on the intensity and area of the pain, and the rapidity of the diffusion of the disease-producing elements. Dr. Reginald Fitz, in his oft-quoted and classic article, published in the *American Journal of the Medical Sciences*, October, 1886, says: "Sudden severe abdominal pain is the most constant first decided symptom of perforating inflammation of the appendix." As a proof of the fact, he shows

¹ Abstract of a paper read at the meeting of the N. Y. State Medical Association, February 7, 1894.

that this manifestation occurred in 216 of 257 cases, or 84 per cent. of the number. If we now turn our attention to the percentage of "free" appendices, and those with mesenteries of more than an inch in length, we also find their sum to be 84 per cent. of the entire number. Certainly this similarity of percentages is, at the least, a strange coincidence.

While it is doubtless true that the situation of the pain is regulated to some extent by the location and direction of a diseased appendix, still, neither time nor utility will permit me to indulge in hair-splitting distinctions in this regard, based on the fact of the extension of the appendix outward, downward, inward, etc., as this feature alone possesses no practical importance, except when the appendix extends beyond the usual limit. It may not be amiss to add, in this connection, that the appendix runs inward in about 25 per cent.; that it is curled behind the cecum in about 20 per cent., and that it extends into the pelvis in 14 per cent. of all cases. The average length (post-mortem) of the appendix in the male is $3\frac{1}{2}$ inches, and in the female $3\frac{1}{4}$ inches, as deduced from 144 examinations. The importance of the frequency (14 per cent.) of intra-pelvic extension should not be considered lightly. Nor can the differences in the length of the organ, as between the sexes, be deemed insignificant, when it is noted that the half-inch difference between them causes the appendix of the male to enter the pelvis twice as often as that of the female. The clinical importance of intra-pelvic extension of the appendix cannot be gainsaid. In a diseased appendix there located the pain may be nearer the hypogastrium, and, too, it may involve the pelvic peritoneum, and modify the action of the pelvic viscera during functional activity. And especially are these facts true if the extremity of the appendix be the portion involved by gangrene or perforation.

Thus far only direct pain has been considered, of both the acute and dull types. Reflex pains, while less important than the direct, are, nevertheless, of great diagnostic significance. Frequently during the course of an attack, and especially at the outset, reflected pain may be present in almost any part of the abdomen. And, too, it is observed not infrequently in the testicle, perineum, rectum, thigh, lumbar region, etc. In fact, referred or reflex pains may occur in the distribution of any spinal nerve directly involved by the disease. Fitz has shown that in 213 cases of appendicitis pain was present in the right iliac fossa in 48 per cent.; in the abdomen in 36; in the hypogastrium in 5; in the umbilical region in 4; in the epigastrium in 2; and 1 per cent. each in the stomach, hepatic region, left iliac fossa, and right hip and groin. I myself treated a case on June 23, 1886, in which the pain was referred to the umbilical region only. That this was

a genuine case cannot be gainsaid, as the appendix was found to be perforated and was removed. The anatomic reason for the occurrence of these reflex pains resides in the well-known influence exercised by the abdominal sympathetic ganglion on the contents of the belly. A misplaced appendix, or a wandering cecum, will account for an unusual pain-site in a few instances. Without amplification, it is sufficient to say now that pain in the right testicle, with or without its retraction, indicates the direct involvement of the genito-crural nerve. The same may be said also of the ilio-inguinal, and the anterior crural, when pain is referred to their respective distributions, in connection with recognized or suspected appendicitis.

Tenderness, the second of the inherent manifestations of appendicitis, may be either local or general, superficial or deep, keen or dull, depending on the extent, location, and character of the inflammation and the variety of the tissue involved by it. If the extra-peritoneal connective tissue be first involved, as when the appendix is located behind the colon, or behind a cecum not surrounded by peritoneum, or outside the peritoneum elsewhere, and; perhaps, between the layers of the broad mesentery of the appendix, the tenderness at the outset is local, deep-seated, and dull. That such cases as these are rare is obvious, on account of the great infrequency of appendices so placed. Quickly, however, the dull tenderness is supplemented and obscured by the acute variety, due to the rapid extension of inflammation to the contiguous peritoneum. The rapidity of the supervention of the acute pain is in direct proportion to the gravity of the lesion and the amount of connective tissue involved by it. Dull tenderness of much duration is indicative, therefore, of a post-colon position of the appendix, and especially is this true in the absence of a meso-colon, which, according to Treves, happened in 52 per cent. of the subjects examined by him.

Acute tenderness is, of course, strong proof of the involvement of the peritoneum, and when it is circumscribed and marks the outset of the attack, its location may be accepted as indicating the site of the initial lesion. If this statement be true, then, indeed, no definite point of tenderness can be established that may be regarded as diagnostic of this disease. The varying directions of the appendix already cited; the differences in its length, and in the situation in it of the point of greatest disease; together with the doubt as to the location of the cecum from which it arises, all conspire to make the establishment of such a point impossible, and a reliance on it impracticable and misleading. Of general tenderness I will say but little, as it cannot be regarded as indicative of a circumscribed

process, and is, therefore, not to be considered as of much practical bearing on the arrangement of the appendix. It is proper, I think, to say that in those cases of appendicitis observed by me, in which the diseased appendix was "free," the area of tenderness was far greater than in those not so freely movable.

The term tension refers mainly to tension of the abdominal walls—a tension that may be limited to the side of the attack, or be more or less general, according to the extent of the inflammation associated with it. The presence of this tension-phenomenon is of beneficent significance and should incite the profoundest respect of the most skeptical minds. The motor nerve-fibers that animate the abdominal muscles are from the lower intercostals, and are intimately connected with the sympathetic supplying the abdominal viscera, through the lower thoracic ganglia from which the splanchnic nerves are derived. As a result of this arrangement, in acute peritonitis the muscles of the abdomen become quickly and firmly contracted, and thus shield the underlying viscera from external force and keep them as quiet as it is possible to do by physical means alone. Tension of the right rectus abdominis muscle in appendicitis is an early and important symptom and indicates the presence of limited peritonitis, and fulfils the conservative purposes already stated. And for these reasons the left rectus goes on guard too, when its subjacent viscera are similarly involved. Muscular tension in this disease is not limited entirely to the abdominal walls, as the psoas and iliacus muscles also contract from nervous involvement or direct implication, causing flexion of the thigh. The bladder and rectum often become fretful, especially if the diseased appendix extends into the pelvis or is attached to the peritoneum at its brim. The cremaster muscle exercises its prerogative on the testicle, if the genito-crural nerve is implicated.

Tumor is a symptom of dual importance on account of its diagnostic and therapeutic significance. The former attribute alone concerns the subject of this paper. That the situation and extent of the diseased appendix has much to do with the location and the determination of the presence of tumor cannot be denied. Generally speaking, the location of the tumor indicates the situation of the lesion, and it is especially significant if the tumor be small, firm, deep-seated, and fixed in its position. If, on the other hand, it be large, not firm, superficial, and movable, its bearing on the site of the initial disease is of a general character only. When present, according to Fitz, tumor is detected by palpation from the first to the eighth day of the attack, inclusive. In 24 cases it appeared—in 1 on the first day; in 3 on the second;

in 4 on the third; in 2 on the fourth; in 4 on the fifth; in 5 on the sixth; in 4 on the seventh; and in 1 on the eighth day. The third, fifth, and sixth days are noticed to be the most prolific ones. Tumor may be early present and yet not be detected till later in the disease, owing to its obscure position, as when associated with a diseased appendix that is located behind the cecum (22 per cent.); when placed behind the colon (2 per cent.); when extended into the pelvis of the intra-pelvic portion to the diseased part (14 per cent.); with a tympanitic cecum, and with general tympanites irrespective of its location. In the intra-pelvic cases tumor may often be detected in the pelvis and not elsewhere, by rectal or vaginal examination. Still, in these cases, tumor may escape the vigilance of the closest scrutiny.

Owing to time-limit I have dwelt only on the leading cardinal symptoms, leaving consideration of the rarer and more curious manifestations for another occasion. In closing, permit me to submit the following conclusions for your consideration:

1. That the location, direction, and extent of the appendix have an important bearing on the clinical history of appendicitis.
2. That the well-recognized variations of the appendix in length, direction, and location, and the varying site of the cecum, and of the seat of the disease of the appendix, make the establishment of a definitely-seated diagnostic point of tenderness unwise and misleading.

THE PATHOLOGY OF LOCOMOTOR ATAXY.¹

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LOCOMOTOR ataxy has found its place in all of our modern text-books on nervous diseases amongst the lesions of the spinal cord. As our knowledge of the pathologic changes in tabes became more exact we found that the spinal cord was not by any means the only part of the nervous system affected. Sclerotic lesions of the posterior spinal roots of the peripheral, spinal, and cerebral nerves, occasionally, also, alterations in the nuclei of cerebral nerves, were discovered. The substance of the brain, it would appear from these reports, is not, as a rule, diseased.

An attempt to explain the genesis of the symptoms in almost any case of locomotor ataxy will soon convince us that comparatively few of them can be attributed to the spinal cord. We know that such disturbances of the functions of the bladder, rectum, and genital organs, as are com-

¹ Read before the Chicago Medical Society, February 5, 1894.

monly found in tabes, can be caused by spinal lesions; they do, however, also occur in diseases of cerebral origin.

Westphal's symptom—the disappearance of the knee-jerk—seems to be undoubtedly a spinal one. The discoverer of this most important sign was fortunate enough to be able to localize its origin very exactly in the spinal cord, his researches proving that degeneration of a region called by him the “Wurzeleintrittszone,” by French authors “bandellettes externes,” was associated with loss of the knee-jerk.

As to the localization of the most important symptom of this disease, the one from which it was named, we know nothing of a positive nature whatsoever. Attempts have been made to explain it by assuming it to be due to sensory disturbances in the joints. All of them have, in my opinion, been decided failures. If there were a connection between these two symptoms, then every case with marked ataxy ought also to present marked sensory disturbances, and any case with slight sensory disturbances only slight ataxy. This is not the case. I have myself seen a case in Heidelberg with very marked incoördination of the movements of the lower extremities. The man has repeatedly been subjected to a very exact examination within the last few years, which has never revealed any sensory disturbances which could have caused the ataxy. Other cases are on record presenting complete anesthesia and not a trace of incoördination.

Jendrassik has called attention to the fact that, leaving locomotor ataxy out of consideration, there is no case on record which proves that ataxy can be caused by a spinal lesion. Some few observations, it is true, are quoted as proofs of this statement, but in some of them the brain was never examined; in others, when this was done, cerebral changes were found as well as spinal lesions.

Never, to my knowledge, has anybody succeeded in producing incoördination of movement by experimentally injuring the spinal cord. There are quite a number of cases on record in which degeneration of peripheral nerves has been found in ataxic subjects. Here, too, it seems that the brain was never examined.

Pitres has reported a case of pseudo-tabes with ataxy, in which spinal cord, spinal roots, and spinal nerves were found to be intact. Does not this observation clearly demonstrate that we must search for the lesion higher up in the nervous system, in the medulla oblongata, pons, or brain.

Glötz's researches have induced him to assume the existence of a center for coördination above the spinal cord. He describes the alterations of motility in his dogs after removal of portions of the brain by comparing the movements to the “Hahn-

entritt,” the step of a cock, a name which is frequently used in Germany in designating the walk of the ataxic. Wernicke and Kahler have seen cerebral lesions followed by ataxic movements exactly like those in tabes, and within the last year or so a similar association was described in a tumor of the frontal lobe—if I am not mistaken, by Bruns. I have seen two cases of this nature, one some years ago, without, however, being able to give the details today. A second was kindly referred to me for examination by my friend, Dr. Carl Beck, only a short time ago. The patient, J. B., is a waiter, fifty years old. His parents are alive, his mother having had a stroke of apoplexy when seventy years old; the father is said to be healthy. B. has partaken of stimulants somewhat freely. In 1870 or 1871 he had a chancre, followed by exanthemata. He is married, but has no children. He has been ill for the last two years. At first the toes of the right foot became cold and numb. He was then delirious for about two weeks, and it is impossible to ascertain whether or not he had delirium tremens. At the end of this time he attempted to get up at night, but fell, as both of his legs were paralyzed. The arms were not weakened; his sphincters acted perfectly well; he was not unconscious; there was no anesthesia. After five or six days he was so far improved that he could get around with the assistance of two canes. The left limb soon regained its normal power; the right one, however, caused him a good deal of inconvenience, as he had intense pain in it whenever he tried to stand or walk, but it too did not remain paretic, nor did it become rigid. Seven or eight months after this there was a syphilitic ulcer on the right shoulder. Pain began to make its appearance in the right arm and the right upper portion of the trunk, being intensified by every movement. Then the speech became impaired; there were paresthesiæ in the right arm; and movements became clumsy. In the right side of the head he always has a painful sensation of heat. One and a half years ago he had double vision for about four months, which disappeared spontaneously. He never had headaches, and did not vomit. The memory is not impaired, nor have the functions of the higher senses suffered.

The right pupil was larger than the left, and the reaction to light was lessened on both sides. Marked tremor of the tongue and facial muscles existed. The speech is thick. There is paresis of the right arm, but no atrophy. The deep reflexes are less marked on the right than on the left side. Pronounced ataxy of the right arm exists. Sensibility is normal. In the legs there was also ataxy on the right side, and the knee-jerk was lessened on both sides. When the patient closes his eyes and places his feet close together, he sways slightly.

The abdominal reflexes are absent. The most scrutinizing examination reveals but one additional symptom, but this one alone enables us to reach a diagnosis. There is a choked disc on the left side. Hence this is a case of tumor of the brain, with marked ataxy of the right extremities.

One more point deserves to be mentioned in this connection. Although few, there are some cases of locomotor ataxy in which the onset of the incoordination is quite acute. I have been fortunate enough to see two cases of this kind. It will hardly do to attribute a symptom that appears quite suddenly to the chronic, very slowly progressing lesions, such as we find in the spinal cord. Of late, attempts have been made to improve the condition of the ataxic by systematically practising movements, and they have been very successful. Can we learn with our spinal cord? Can practice decrease the number of degenerated fibers in the posterior columns?

A part of the sensory disturbances in locomotor ataxy may readily be explained by lesions of the posterior columns; others, however, it appears to me, are due, to a change not in the conducting but in the perceiving organs. In this connection I would mention the symptoms of allocheiria, polyesthesia, and after-pain, all of which are to me intelligible only if I assume that the function of apperception and not that of mere conduction is impaired.

The symptoms just enumerated have very probably their origin in some part of the nervous system other than the spinal cord. There is another series, no less numerous than this, which is surely due to extra-spinal lesions. Amongst these, ocular disturbances are both the most important and the most frequent, very often preceding by years every other sign of illness. I refer to the atrophy of the optic nerve, to ophthalmoplegia interna and externa. Eulenburg has compiled statistics on the frequency of these symptoms, comprising sixty-four cases of locomotor ataxy. In these he found strabismus divergens 19 times, 4 times associated with paralytic ptosis; strabismus convergens, 6 times; mydriasis, 6 times; myosis, 28 times; amblyopia, 31 times.

Topinard has examined 102 cases of tabes and found amblyopia in fifty-one, or exactly 50 per cent. These statistics ought to be considered sufficient proof of the fact that the ocular disturbances are more than chance complications, that they are very important and constant symptoms, as constant almost as any found in tabes. I have mentioned the impaired reaction and increased or decreased size of the pupils amongst the extra-spinal, or rather, cerebral symptoms, as I am convinced that this is the correct localization for them. Although we know exactly where to search for the so-called

cilio-spinal center in the spinal cord, nobody has, to my knowledge, ever found any lesion of this portion in a case of locomotor ataxy. Bramwell is certainly fully justified in attributing the loss of pupillary reaction to light and the decrease in size of the pupil to cerebral changes.

There are quite a number of other symptoms of clearly cerebral origin not infrequently found in ataxy, such as atrophy of cerebral, auditory, olfactory, and other nerves; paralysis of accommodation, hemiatrophy of the tongue, paralysis of the sensory or motor portions of the fifth nerve, lightning-pains in the head, attacks of vertigo, transient apoplectic seizures, transient hemiplegia, convulsions in cases which never develop general paralysis (Kahler), various forms of insanity, besides the exceedingly frequent combination with paralytic dementia, drowsiness, headache, hyperemia cerebri, and increased irritability. Steinthal has noticed, and Erb confirms his observations, that patients suffering from locomotor ataxy are very frequently remarkably gay and satisfied with their fate. Athetosis has been observed by Cruveilhier, Hammond, Leyden, Laquer, and others.

If cerebral changes are as common in locomotor ataxy as the frequency of cerebral symptoms would seem to make probable, why are they so rarely described? Whoever has attempted to find microscopic lesions in a brain without knowing just where to look for them will not hesitate to answer this question. It is an undertaking that requires more patience and more time than most observers wish to give to it. The difficult and tedious task has, however, been undertaken in a few cases within the last few years. And the results are just what we must expect if we consider the symptoms. In every case examined, diffuse changes in the cerebrum have been discovered. Jendrassik was the first to undertake these researches. He examined the brain of two individuals who had suffered from locomotor ataxy, but had not presented any symptoms of general paralysis, and in both cases he found cerebral lesions. Somewhat later I had occasion to control his results in another case in which the inspection at the time of the post-mortem examination did not indicate that the brain was diseased. Unfortunately this case was not a pure one, as the microscope revealed the existence of diffuse syphilitic lesions in the membranes of the brain and spinal cord. This was the first time that meningitis syphilitica had been found associated with the typical tabetic degeneration in the posterior columns. Since then a number of similar cases have been published. Kraus has recently communicated the result of his most diligent and exact researches on the pathology of locomotor ataxy. Unfortunately, like most of his predecessors, he, too, has not taken the trouble

to make a microscopic examination of the brain; but even so, his work is of the greatest importance to us. He has examined the brain macroscopically thirteen times and has found changes in the brain-substance proper, the cerebral nerves, or the membrane with the naked eye, thirteen times. The lesions discovered were:

	TIMES.
Atrophy of the optic nerve	2
Atrophy of the olfactory nerve	1
Atrophy of the brain	4
(Perhaps also present in a fifth case.)	
Pachymeningitis	4
Leptomeningitis	6
Edema of the brain	4
Hydrocephalus internus	2
Multiple encephalomalacia	1

A good deal of work still remains to be done, but this much I think can be said to-day: That the brain is diseased in the majority, probably in all cases, of locomotor ataxy; that quite a number of the most constant symptoms of this disease are very probably, and some of them surely, not of spinal, but of cerebral origin; and that locomotor ataxy is certainly not merely a spinal disease, but one rather of the entire central and peripheral nervous system.

THE CAUSES AND TREATMENT OF MIGRAINE.¹

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A REVIEW of the latest standard text-books on nervous diseases reveals, on the whole, a very unsatisfactory state as regards the treatment of sick headache and shows also much uncertainty as to its causes. Marked discrepancies exist amongst different authors on the subject. On this account I wish to place before you some personal observations based on a large experience with this disease, as in my line of practice migraine is a very common annoyance.

In order to limit the subject I shall confine myself strictly to migraine or sick headache, or that form of headache which recurs in periodic attacks, with free intervals of variable length between the spells. This is the only definition which I can accept as characterizing the disease, because the symptoms may vary much in different persons. Even the symptom that has given the disease one of its names, viz., sick headache—that is to say, the nausea often leading to vomiting toward the end of the attack—occurs in less than one-half of the patients and in these not with every attack.

I have but little to add to the symptomatology. Some of the less common symptoms, however, may be worth pointing out. In one of my patients the attack began with dizziness and a subjective feeling of chilliness and numbness so pronounced

that the disease was mistaken for malaria by the family physician. Yet this was a migraine of distinct ocular origin and completely relieved by glasses. In many cases an attack begins with flickering and greater or less visual disturbance, sometimes in the form of hemianopsia, sometimes with gradual shrinkage of the visual field. This form has been called by different writers ophthalmic migraine and scotoma scintillans fugax. There exist, however, all gradations between the most pronounced instances of this type and ordinary migraine. After the short spell of dizziness the typical headache comes on. It has almost seemed to me as if this form of "blind headache," as it is popularly called, were better known to the public than to the profession at large. In comparatively few instances the "blind spell" is not followed by any headache at all, its place being taken by other nervous symptoms, such as numbness or a feeling of pressure in the head.

In the etiology of migraine I wish to combat what seem to me certain errors that are repeated in most modern text-books.

Gowers, for instance, considers migraine a manifestation of gout. Its appearance, however, in early life, even in childhood, and its frequent spontaneous cessation after middle life, speak against this view. Even in migraine-patients of advanced age I have not seen gouty manifestations often enough to suggest any connection.

Again, many authors connect migraine with epilepsy. Yet the one is an exceedingly common complaint, the other a relatively rare disease. Moreover, it must not be overlooked that an epileptic may have sick headaches, as well as a person not so afflicted. The most probable reason why this otherwise unsupported view of the relation of these two diseases has been copied in the text-books seems to me to have been a diagnostic error. It is not unlikely that the minor attacks that often precede the history of pronounced epileptic seizures have been mistaken for erratic forms of migraine.

According to my personal experience migraine is not characteristic of a neurotic tendency. While I admit that this headache is often hereditary in families and that it is more liable to occur in persons of a neurotic disposition, I have observed many instances in which neither the patient's antecedents nor the family history indicated any liability to functional disorders or lesions of the nervous system.

The most frequent etiologic factor of migraine within my experience has been astigmatism. One of the reasons for dwelling on this relationship, so well known to all oculists, is the fact that it is slighted or ignored by many authorities on nervous diseases. (Gray, Gowers, Hirt.)

¹ Read before the Chicago Medical Society.

I cannot, however, give statistics of any value on this subject, for most of the patients came to me not on account of their headaches but on account of their eyes. Hence, even if I had complete records, they would consist of selected cases and would therefore be valueless for statistical purposes.

As an approximative estimate, I would judge nearly one-half of all instances of migraine to be dependent upon astigmatism. But the very fact that not all astigmatics suffer from sick headache shows that certain conditions of the nervous system are requisite to the occurrence of migraine.

The proof of the relation of astigmatism to migraine is furnished by the permanent cessation of the attacks when correcting glasses are worn. But the attacks do not always cease at once after the ametropia is corrected. Sometimes a few mild spells will still occur. Again, in other instances the attacks do not cease entirely, but become less frequent and less severe. It must be remembered, however, that the most perfect correction of the astigmatism ceases to be perfect when the patient looks through the glass at an angle with the axis of the glass, and that patients are not always as faithful about wearing their glasses as the physician expects them to be. Yet I could find on my records over a hundred illustrations of permanent relief by glasses, controlled by observation after months and years. Occasionally patients have returned to me after years of freedom, with a return of the old headache, due to incorrect repairs of their broken glasses.

The degree of astigmatism most commonly associated with sick headache is from one to three diopters. High degrees of astigmatism often cause no annoyance except poor sight. Whenever migraine seemed to depend on an error of less than one diopter down to one-half it has been mostly in persons of a neurotic history. I have never been able to trace sick headaches or any other form of complaint to an astigmatism of less than one-half a diopter. I have but rarely prescribed weaker glasses myself, but neither in my own instances nor in numerous observations in which patients had received such weak glasses from others have I seen any decisive benefit following their use. It has seemed to me that astigmatism with oblique meridians is more likely to cause migraine than when the principal meridians are either approximately vertical or horizontal.

Finally, I do not wish to conceal the fact that migraine may occur in conjunction with astigmatism, without apparent dependence upon the latter. For in a few rare instances the satisfactory optic correction had no effect upon the headache.

In practice the question often occurs whether migraine can be caused by an astigmatism which the

patient does not feel as eye-strain. I have not made any observations enabling me to decide that question definitely. There are certainly instances in which patients with migraine curable by cylindric glasses do not complain of their eyes spontaneously, but on close questioning they have usually admitted that their eyes did get tired or weak on prolonged use.

Hypermetropia has been but rarely the cause of migraine in my observation. This condition, it is true, is a very common cause of headaches, but they are not of the periodic type. Very commonly hypermetropia, as well as astigmatism, gives rise to headache immediately following the use of the eyes, but this form of pain is not the subject of the present paper.

A much less common source of migraine in my experience has been nasal disease. Inflammatory affections of the nose and accessory sinuses lead very often to headache it is true, but not of the migraine type. Since Hack first reported his accidental cures of migraine by nasal cauterization some ten years ago, I have searched for the etiologic influence of nasal troubles in all cases which were not clearly traceable to eye-strain. I have not been able to confirm Hack's observations; however, that sick headaches are frequently ushered in by nasal irritability, and in such instances permanently stopped by cauterization of the turbinated bodies. But I have seen at least six instances in which unilateral migraine occurred principally or exclusively on the side of a nasal stenosis, and in which permanent improvement not far from a perfect cure followed the operative removal of the stenosis.

Another peripheral affection that has seemed to me to have an etiologic relation to migraine is intestinal catarrh. I cannot say much as to its frequency, on account of the limitation of my practice, but I have obtained not so very rarely a history of dyspeptic annoyances, with loose passages alternating with constipation, in patients whose migraine could be attributed neither to eye-strain nor to nasal disease. The relation of the two disorders to each other—suggested by the histories—was made very probable by the improvement in the headaches following the dietetic and hygienic management of the intestinal disease. As a rule, however, I have seen such patients in consultation and I have not always been able to follow their subsequent course.

In less than one-half of the cases of migraine under my observation no peripheral source of the headaches could be found.

An influence which has often shown itself by aggravation of the headaches is overwork and want of sleep, as for instance in nursing mothers. I have not been able to satisfy myself, however, that malnutrition from other causes plays any rôle in this disease.

It is of importance to study what influences lead to the occurrence of attacks in patients subject to migraine. Many persons claim that any disorder of digestion would bring on their spell. I think this is an error, and that the nausea which often terminates the attack is a symptom of nervous origin and does not indicate any primary gastric disturbance. In those instances which I have been able to study closest, I have never observed gastric anomalies preceding the attack; nor have I seen the attacks brought on by actual stomach-disorders. In some patients insufficient sleep is the most important exciting condition of migraine. In instances of migraine beginning with scotoma, I have observed attacks induced by dazzling illumination, an observation to which Manz has also called attention.

The treatment of sick headache has been most satisfactory to me in those cases in which eye-strain was the cause. With very few exceptions glasses have always given such patients relief. If well selected and properly worn they have practically abolished headaches in most instances.

My own experience, although limited, as well as the more extensive observations of Hack, suggest that whenever migraine cannot be attributed to eye-strain, a nasal influence should be searched for. Whenever a one-sided migraine corresponds to a one-sided nasal stenosis, or whenever a marked irritability of the nasal cavernous tissue exists and makes itself noticeable at the time of the attack, nasal treatment offers at least a reasonable prospect for a permanent cure.

The improvement which I have witnessed after dietetic management of intestinal catarrh should likewise be a hint in the examination and treatment of patients with migraine.

Whenever overwork seems to play a rôle, we may expect improvement by proper hygienic directions. I have repeatedly seen patients temporarily and a few times permanently benefited by travelling, even though the journeys did not involve complete relaxation from business or from studies.

Of drugs I know none that will cure migraine except cannabis indica. According to my experience from one-fourth to one-third of all patients are permanently benefited by its use. This applies equally to cases without a peripheral source of irritation, as well as to those with eye-strain, who for some reason or other would not wear glasses. Seguin, who first popularized the use of Indian hemp in this disorder, advised its continued administration in every case, and claimed more or less complete relief in about one-half of his observations after several months' treatment.

When I began the study of cannabis indica about twelve years ago many preparations in the market were inert. I found, however, a solid extract pre-

pared by Hering absolutely reliable. Squibb's hemp is perhaps equally good, but I have not had the same experience with it. For reasons of convenience I have always used the tincture (360 grains to the pint) prepared with Hering's extract in doses of from 15 to 25 drops. This dose must not be given oftener than once in six or eight hours, or it will lead to a cumulative and often very disagreeable effect upon the mind. My first experience showed that in certain patients cannabis indica aborts each attack of migraine. If the first dose does not give complete relief I give another in six hours in slightly larger quantity. When moderate doses fail entirely, larger ones answer no better purpose. Very severe attacks are sometimes only relieved, but not entirely aborted.

Whenever hemp influences the individual attack, its continued use twice daily will usually protect the patients against the recurrence of the spells, and if persisted in for months, will cure many but not all of the cases. I have scarcely ever insisted on its continued use in those instances in which it did not alleviate the pain at the time, and have no reason to think that it would prove of service to such patients in the long run.

Other drugs recommended in the text-books for the cure of migraine, such as iron, strychnin, arsenic, and phosphid of zinc, I have used but little myself and invariably with negative results. But I have had a fair experience with patients who had followed such treatment on the advice of other physicians, and likewise without appreciable benefit.

If the individual attack does not yield to cannabis indica it can be stopped almost invariably by antipyrin. Acetanilid and phenacetin are not as universally successful as antipyrin. Guarana has in former times more often failed than proved satisfactory in my patients. Bromids do not stop the attacks, although they may relieve the discomfort. Chloral aborts migraine only when it induces sleep in patients whose headache will yield to sleep. Morphin has no effect at all upon the attack. It only dulls the pain while its action lasts.

Quack Medical Advertisements Refused.—Our gratification at finding the following prominent notice on the title-page of the *Farm Journal* leads us to quote it entire:

"No quack medical advertisements in this paper—not one. Yet dearly would they like to get in. This very month we could have had a thousand dollars' worth without the asking. And we call this simply 'fair play' to our readers. Would it be more than 'fair play' on your part to send us a club of five or ten subscribers in recognition of our efforts to keep our columns clear of such trash?"

"Rogues shall not ply their trade at the expense of our subscribers, who are our friends, through the medium of these columns. Let this be understood by everybody now and henceforth."

TUMORS OF THE SUPERIOR MAXILLA.

BY J. H. BRANHAM, M.D.,
OF BALTIMORE, MD.

THE object of this paper is to relate the histories of two interesting cases operated on by me during the past summer at the City Hospital, and to discuss briefly some of the more important points suggested by these and similar cases, especially with reference to treatment.

CASE I.—Peter K., twenty-nine years of age, a colored male laborer, was admitted to the City Hospital, June 22, 1893. Nine years previously the left half of the inferior maxilla was removed by the late Prof. O. J. Coskery for sarcoma; about three years ago an epulis was removed from his left superior maxilla by Prof. C. F. Bevan. The patient says that the present growth has been coming on for about two years. There is no history of injury. Examination showed considerable bulging forward of the left side of face and projection of the malar bone and part of the superior maxilla upward, so as to close, partially, the left eye. The left hard palate was very much depressed, and projecting backward behind the posterior palatine arch was a large, soft tumor which largely filled the left side of the pharynx. The clinical diagnosis of sarcoma of the superior maxilla was made, and excision was advised and readily consented to by the patient.

The operation was performed June 28, 1893. The face and neck having been shaved and made clean by soap, water, potassium permanganate, and mercuric chlorid, the patient was given chloroform and a preliminary tracheotomy was performed. The pharynx was cleansed and packed with absorbent cotton. The Ferguson incision from the front of the ear underneath the orbit and down the side of the nose where it joins the face, and down the middle of the lip, was then made. The hemorrhage was considerable, but was readily controlled by Péan forceps. The cheek was next separated from the bone. The bony attachments of the left superior maxilla were next rapidly cut through with large bone-pliers, and this bone with the left palate bone was removed. It was now found that the pterygoid processes of the sphenoid were involved in the growth which projected backward, and these were cut through high up at their junction, and removed. It was discovered that the tumor projected downward toward the glenoid cavity, and in removing this part the hemorrhage was excessive. As soon as the operation was completed the hemorrhage was easily controlled by pressure.

The posterior attachments of the tumor were separated by scissors and the curet was applied to the deeper parts of the cavity after the operation. The cavity was now packed with sterilized gauze, and the skin-wound was closed by continuous sutures, after which a sterilized gauze dressing was applied.

The tracheotomy-tube was removed on the second day, but the wound remained open for about a week. The packing was removed from the cavity on the seventh day. The foul odor which is so

disagreeable in these cases was overcome to a great extent by a 2 per cent. solution of potassium permanganate.

The temperature was never higher than 102°. The skin-wound healed by first intention, the lower cavity left by the operation rapidly filled by granulation, and the patient made an uninterrupted recovery. He was discharged July 28th entirely well and strong.

CASE II.—Hannah McK., a white female, forty years of age, American, widow, was admitted to the City Hospital, August 26, 1893. She had been struck on the side of the head by a shuttle about a year before. About four months ago she first noticed a swelling on the right side of the face, which seven weeks ago broke into the nose and mouth and discharged very offensive matter. This discharge has been repeated every two or three days since. The patient has suffered great pain and has been using anodynes freely. She was very anemic and weak. Projecting from the right maxilla underneath the skin, by the cheek, was a soft, pulsating tumor that almost closed the right eye; over this, the skin was tense and reddish. The mass pressed well down into the mouth and closed the right side of the nose.

Operation was undertaken August 28, 1893. The incision was the same as in the preceding case. The tumor was found to have destroyed almost entirely the superior maxilla. This, with the palate and part of the ethmoid were removed, and the cavity was thoroughly curetted. The posterior part of the orbit was extensively invaded. The patient took the anesthetic (chloroform) badly, and was given several injections of strychnin and digitalis during the operation. She rallied slowly after the operation and was very weak for several days. The hemorrhage, although not excessive, was severe. The skin-wound healed by first intention. The woman improved rapidly after the first few days, and was able to be about in two weeks, but complained of great pain in the eye, for which reason she was kept in the hospital.

The pain in the right eye and the swelling of the lid remained, and were troublesome.

September 20th the pain in the eye had increased so as to require anodynes. During the last part of October the patient became irritable, and then comatose, and finally died on November 1st, two months and three days after the operation.

It was impossible to secure a post-mortem examination, but death undoubtedly resulted from extension of the disease to the cranial cavity. These tumors were kindly examined by Prof. Kierle, and are both spindle-celled sarcoma.

Butlin¹ says that the larger number of malignant tumors of the upper jaw appear to be carcinoma, usually squamous; while Joseph D. Bryant² in the histories of 250 cases gives 71 as sarcomatous to 47

¹ The Operative Treatment of Malignant Disease. London, 1887, p. 128.

² Transactions of the Medical Society of the State of New York, 1890, p. 63.

carcinomatous. This would indicate that sarcoma occurs more frequently, the giant-cell variety being the most common.

The early diagnosis and treatment of these tumors are of the greatest importance, as thorough removal in the first stages gives the only hope for these poor sufferers. Partial excision is comparatively a safe operation, but is likely to be followed by recurrence, and should be employed only when the tumor cannot be entirely removed, and even when complete removal is practised the patient should be carefully watched for recurrence.

The complete removal of the superior maxilla has, according to Butlin, a mortality of 30 per cent. This conclusion is reached from a study of 108 cases—42 from the various London hospitals and 66 from German reports. Bryant (*loc. cit.*) reports 183 cases with 26 deaths, or 15.5 per cent. The sources of his statistics are not given, but they are up to a date three years later than Butlin's, and probably contain many American cases.

The question of preliminary tracheotomy is very important. It enables the operator to select the most convenient position for the patient, and undoubtedly increases the ease with which the tumor can be studied and manipulated. On the other hand, the operation of tracheotomy in itself adds something to the danger, and I think it probably increases the liability to septic pneumonia, from the passage of substances from the pharynx into the bronchi. This would naturally be the case, as ability to expel such foreign bodies by coughing is lost.

The operation is naturally accompanied by severe hemorrhage, which, in a considerable number of cases, ends fatally. This is met and limited by rapid operation, and pressure, direct or to the carotids. Some operators recommend the ligation of the common or of the external carotids as a preliminary step. As the ligation of the common carotids has a mortality at least as great as the removal of the bone without it, the procedure is not likely to have many advocates, and probably will be performed but seldom in the future. On the other hand, the ligation of both external carotids is comparatively safe, and facilitates the ease with which the operation can be completed. Bryant also claims that it decreases the growth of tumors to a great extent, and probably retards the tendency to return after removal. From these considerations I believe it to be commendable, and shall in future employ it in every vascular and rapid-growing tumor.

The first case presented by me is of especial interest, because of the occurrence of sarcoma in both maxillæ on the same side, with an interval of about nine years. From the fact that the tumor removed by me was closely attached by a dense pedicle near the glenoid cavity, it seems possible that recurrence

took place in the periosteum around the end of the removed bone, and the growth afterward extended to the upper maxilla, illustrating the fact that these tumors tend to recur in the periosteum of the bone when they primarily spring from that tissue.

The second case represents the great rapidity of growth of some of the sarcomata. It was first noticed about four months before removal, and six months before death from extension to the cranial cavity.

The most disappointing feature about these cases is the great frequency of recurrence. Few cases escape this, but with the better understanding of the dangers of these tumors by the laity, as well as by the profession at large, I believe that in the future earlier operations will be done and more permanent cures will result.

Before closing, I wish to refer to one very remarkable operation reported by Mr. Earle, who, in 1831, removed the right superior maxilla for fungoid growth. The common carotid was first tied, and the night after the operation the patient was bled a pint! In spite of this the patient is reported to have recovered. In connection with this I will borrow a quotation from Bryant:

"Man yields to custom as he bows to fate,
In all things ruled, mind, body, and estate;
In pain and sickness, we for cure apply
To those we know not, and we know not why."

These lines were written by Crabbe one year afterward, and it is barely possible he had heard of this remarkable case treated by this surgical Sangrado.

CLINICAL LECTURE.

TALIPES PLANUS; SUSPECTED FRACTURE OF HUMERUS; FIBRO-LIPOMA; DRESSING OF EMPYEMA AFTER ESTLANDER'S OPERATION.¹

BY ROSWELL PARK, A.M., M.D.,
PROFESSOR OF SURGERY, UNIVERSITY OF BUFFALO.

THIS patient is a lad of nineteen, who has a variety of club-foot known as "flat-foot" or "splay-foot"—more technically, as talipes planus. There is also the tendency for the foot to rest upon its inner border, known as talipes valgus. I have here the foot and leg of a skeleton, showing that the normal foot contains a bony arch, the weight of the body resting on the heel, the outer side of the foot, the ball of the foot at the extremity of the metatarsus, and the toes. In the condition of talipes plano-valgus, both the antero-posterior and the lateral arches are flattened out and the whole surface of the sole comes on the ground. But this is not all. I find here a positive change in the shape of the tarsal bones, of just how many I do not know, but the astragalus, which in the normal foot never protrudes in any

¹ A clinical lecture delivered at the Buffalo General Hospital.

direction, bulges out beyond the external malleolus, while there is a corresponding depression on the inner side of the foot. There is, however, no true luxation of any of the tarsal bones.

This condition began when the boy was old enough to work on a farm. In spite of his youth he is as large as most adults, and his tarsal bones and ligaments, which were doubtless strong enough to bear a weight of a hundred pounds, have yielded under a weight of a hundred and fifty pounds. If the patient could have led an easy life, probably this condition would not have arisen, but he is a poor Swedish boy who has had to do a man's work. Some of you might be inclined to ask what harm the flattening of the foot does and whether it is not to be regarded rather as a personal deformity, of little consequence to one who has not the opportunity to participate in social life. In reply I might call your attention to the improbability of a boy in his position seeking relief for purely cosmetic reasons. As a matter of fact, flat-foot is not usually painful unless it is subjected to much strain from the person's being continually on his feet. Any joint or series of joints that have to work in an improper position are strained in parts where there is no natural provision or protection against strain, and so this very condition has received the name *talipes planus dolorosus*. I can put this young man to bed and make him perfectly comfortable, but he will suffer as soon as he gets up and puts his weight on his feet. I can relieve him by dressing his feet in plaster-of-Paris, so as to give them an external support, but this treatment would have to be kept up for six months or more. It might be seen that the arch of the foot could be restored by building up the middle of the sole of the shoe, but there are objections to this method of relief.

You will notice that by twisting the foot inward I can restore the arch and make the outer side the lower, as it should be. In a child, I could probably restore the foot to its normal shape simply by holding it in this position by plaster-of-Paris for a long time. It has been suggested to hold the foot in this position for a little while and then to apply the actual cautery to the inner side of the foot and the sole, in a series of linear stripes, going down to the tendon-sheaths. The cicatricial contraction which results will shrink the plantar fascia so as to hold the arch of the tarsus in place. This method is available in moderate degrees of flat-foot, especially in young children, but it requires a long time before the cicatricial tissue is firm enough to be put to the test of actual use. In an adult, and this lad has almost attained his growth, I prefer to give an anesthetic, and, applying an Esmarch bandage so as to make the operation bloodless, to remove a wedge-shaped mass from the tarsus, mainly from the astragalus, and bring the parts together with strong sutures. In order that the result of the treatment may be plainly shown, I have had two plaster casts made of the feet in their present state of deformity. No weight rested on the feet while the casts were being taken, so that the deformity is not seen at its worst.

The feet have been cleaned and rendered much whiter than I thought possible by prolonged treatment with hot water and liquor potassæ. After washing the foot again with bichlorid of mercury solution, the Esmarch bandage is applied so as to strip the blood up toward the knee and

the tourniquet secured. The incision is made longitudinally over the prominence of the astragalus. The bone is chiselled away and the parts brought together so as to close the gap in the tarsus. You can see that the arch is now quite well restored; the fascia and superficial structures are united by one set of heavy catgut sutures; the wound is dusted with iodoform, the surrounding area anointed with sterilized vaselin and dressed with bichlorid gauze and naphthalin cotton. The operation is repeated on the opposite foot. Now, in order to prevent all disturbance of the feet, I will surround the antiseptic dressing with a plaster cast applied in the usual manner.

Some of you may have read in the papers of a little Polish girl who had been cruelly beaten and starved by her father, and who was rescued by the Humane Society. This is the little sufferer, who was brought to the hospital a few days ago with her right arm so badly swollen that, even under chloroform, a careful examination was impossible. There is still a great deal of swelling—not so much at the elbow as above. The only safe course in diagnosing fractures is to compare opposite limbs. At the elbow the three prominent landmarks are the condyles of the humerus and the olecranon, which should be in the same horizontal plane with the arm flexed at a right angle. By comparing the two sides, even a slight disturbance of the normal relations of these three prominences may be detected. In this case they seem to be in the same relative position on each side. Complete extension of the arm causes no pain, and it is only when flexion is carried beyond a right angle that complaint is elicited. Although fracture has been suspected, we must remember that the pain may be due to a sprain, to cellulitis, or to other inflammation about the joint. At various places you can see where ecchymoses are fading away into a greenish-yellow discoloration. It is now a week since the patient was brought to the hospital, and although I cannot say absolutely that there has been no fracture, I can say that the parts are at present in their normal position, and there is nothing to do but leave the arm at rest, applying an absorbent ointment of ichthyol and blue ointment diluted with lanolin. A splint has been kept on as a precautionary measure. I see no further indication for anything more than a triangular splint to keep the parts at rest.

A year ago we had a patient in the hospital from whose arm I removed a pedunculated lipoma as large as his head. He has shown his appreciation by sending in another patient, with the message that "out in his part of the country there are lots of men with bunches, and he is going to send every one of them here." The present patient is a middle-aged laborer, with a tumor at the back of his neck. It has grown slowly for years; it is painless, and gives him no trouble except the inconvenience of preventing him from wearing a shirt and collar in the ordinary way. It is somewhat soft, and without being actually fluctuating, it is movable in the deeper tissues and the skin is movable over it. It is undoubtedly benign and probably is composed of fat. Now that the patient is entirely relaxed by the anesthetic, it seems more elastic, as if there were fluid confined in a sac or, on the contrary, a more consistent mass than the ordinary lipoma. I expose it by an incision about fifteen

centimeters long and find a solid tumor. There are no important vessels or nerves to avoid, and I can proceed rapidly with the enucleation. You see it is quite nodular, some parts being almost separated from the main tumor. A few vessels require ligation. The raw surfaces are brought together by buried sutures, to check the capillary oozing and get more speedy union. The ordinary antiseptic dressing is applied, and over it a large flat posterior splint, which I have had made to fit the trunk and neck, so as to immobilize the parts. This will be of special service during the restless stage which follows the anesthesia. The wound ought to be healed in a week. On cutting into the tumor, I find an intermixture of fat with quite dense fibrous tissue, so that the growth is properly a fibro-lipoma.

This patient is the one on whom I performed Estlander's operation a few weeks ago. He has been reserved until the close of the clinic because I did not wish to run any risk of infecting other patients with the foul pus which still exudes from the remains of the pleural cavity. You will notice that the dressings are stained green. This is due to the presence of a particular bacterium—the so-called bacillus of green pus—which always indicates a slow and chronic suppuration. The patient, at the time of operation, was in quite a critical condition, and there was a fistula through which pus was constantly overflowing. A free incision was made, and on lifting up the flap containing the resected portions of several ribs I could plainly see the motion of the heart inside the pericardium, which was covered with granulations. Already there has been a marked collapse of the chest-wall to meet the lung, which could not expand to meet the thorax wall. The patient is in better spirits since the operation, and he will be, I hope, a healthy man, if not a symmetrical one. Some of you were doubtless surprised to see me remove so much tissue. Yet, at the operation I was hurried so much by the critical condition of the patient that I could not take time to remove all that I wished. Here is a space that will have to fill up with granulation-tissue, because the strength of the patient did not permit the resection of another rib. This operation was thought out first on theoretical grounds, and Estlander had the hardihood to carry it out in practice and show that, desperate as it was, it was nevertheless practicable. Many years ago, when I was a hospital interne, I saw a number of cases of empyema go steadily downward from the exhaustion of hectic fever, without relief. Drainage was made use of, but it was not sufficient in the worst cases. Out of ten operations which I have performed in this hospital, only one patient has died from the effects of operation, and that was a desperate case which had been sent to Buffalo to die. In several cases the openings have been larger than in this case.

The cavity is freely irrigated with a boric-acid solution and the dressing completely renewed. Under the pus you can see healthy granulations springing up.

Pfarrer Kneipp and His Water-cure.—It is reported that the so-called priest-physician of Bavaria has been called to Rome to advise Pope Leo on matters of health. The "Wunder-doktor" has advised cold bathing, and has predicted for his Holiness "several more years of life." It is said that the now-aged Pfarrer receives "over several hundred patients" daily.

CLINICAL MEMORANDA.

THREE CASES OF PNEUMONIA FOLLOWED BY MANIA.¹

BY J. B. CAMPBELL, M.D.,
OF LONDON, CANADA.

CASE I.—In the spring of 1874 I was called to see a young man, twenty years of age, who had been ill for over a week with pneumonia.

He was treated by a neighboring physician who reported favorably concerning the case from day to day, and finally about the seventh day pronounced him out of danger. About twenty-four hours later the physician was again summoned in great haste, and on his arrival he found that the patient after sleeping soundly awoke in a wild delirium. The physician ordered food and stimulants, but on his return in the evening there was no improvement. The next morning, the man being still wild and maniacal, I was called in and found that he was required to be held in bed.

On examination I found the patient with a fast pulse, cold and perspiring skin, pallid face, and lungs clear or nearly so.

I advised the treatment, which consisted of brandy and milk, with a mixture of ammonia and camphor, to be continued. The patient died during the night. The physician informed me that he had thought the case one of ordinary right-sided pneumonia, and he could not account for the sudden change and delirium after he had about given up the case as cured.

CASE II.—On February 14, 1880, I was called to see a young man of about sixteen years of age, who on the evening before, and about fifteen hours before I saw him, was taken with a chill. I found him with face flushed, perspiring, the pulse full and strong (120 per minute), and with a temperature of 105°. He complained of pain in the right side and his breathing was short and quick; rusty sputa, hacking cough, dullness of the lower lobe of the right lung and crepitation in the upper lobe were present. The left lung was normal or nearly so. I ordered a hot bran-poultice, which was on the chest, to be continued, and prescribed the following:

R.—Liq. ammon. acetat. 3j.
Spt. æther. nit. 3iv.
Tinct. aconit. gtt. x.
Aque ad 3vj.

Sig.—A teaspoonful every hour.

On February 15th the pulse was 110, the temperature 104°, the cough free, and the sputa considerably tinged with blood. There was no delirium, except for a few moments after waking from sleep. On February 16th, 17th, and 18th the case seemed to progress favorably. On the 19th the temperature was 102.5°, the patient was a good deal better, the expectoration was free, and the cough was nearly gone. I changed the medicine and gave:

R.—Ammonii carb. gr. ij.
Ext. scillæ et senegæ gtt. j.
Syr. simplicis 3j.

¹ Read before the London Medical Society.

every three hours. I felt well pleased with the progress the case was making, and the family did also; all agreed that the patient was getting on better than a brother did whom I treated for the same disease a year previously. On February 20th the temperature was normal, the appetite was returning, and the patient felt nearly well. I discontinued the poultice, and wrapped the chest in cotton batting, with a bandage. I ordered the last mixture continued, with milk, beef-tea, etc. On February 21st I was summoned early in the morning and was told that the patient awoke from sleep, became delirious, and was wild most of the night, the nurse being unable to keep him in bed. I hurried to him and found him sitting up in bed and pulling the bedclothes. He appeared to be afraid of those about him; his face was pale, with a maniacal expression, his pulse was fast, he had no cough, his lung was nearly clear, his temperature sub-normal, his skin cold and bathed with perspiration. He appeared to recognize me when I spoke to him and quieted himself. I covered him well with blankets and ordered hot bottles in the bed; I gave spts. ammoniac aromat., digitalis, and brandy, and left. I was again sent for in the evening, and on arrival I found him worse than in the morning, although his mother told me that at times during the day he was rational; the pulse was now weak and irregular. He was afraid and saw soldiers coming to take him away, and also had hallucinations of hearing. He fought, pleaded, and wept, till finally he threw himself across the bed exhausted, sobbed a few minutes, and then died, about thirty hours from the advent of the mania.

The loss of my patient caused me a great deal of worry. The family had unbounded confidence in my skill and ability, as well as in my honesty. The manner, however, in which I reported progress from day to day till the last, when it was apparent to all that there was no hope, caused the family and friends to censure me very much; some of them thought I must have known better, while others attributed my actions to ignorance. This case brought back to my mind the first case reported, when the other physician had to bear the blame and censure of the friends.

CASE III.—On April 10, 1890, I was called to see a farmer's son, fifteen years of age, whose mother informed me that he had been sick for nearly a week; he was taken with a chill while working in the woods, and had had cough and fever since. This morning she noticed rusty-colored sputa and sent for me. I found the temperature 104.5°, the pulse 125, and respiration 60; the face was flushed and dusky, the tongue coated and moist; there was pain in the right side, with hacking cough, crepitation in the lung, from base to apex. The left lung was nearly normal.

I prescribed a mixture of liq. ammon. acetat., spts. æth. nitros., and aconite, to be given every hour, and ordered a linseed-poultice with mustard to the chest. On April 11th in the morning, the pulse and temperature were still about the same, the respiration 55, and perspiration was free. He did not rest well the night before, but complained of the pain. I left a powder containing quinin, gr. iij, Dover's powder, gr. v, to be given at night, and advised the other treatment to be continued. On April 12th the patient slept better, and did not have much pain, but was somewhat delirious; there was no change in

temperature or pulse. The respiration was about 50. On April 13th and 14th the symptoms were about the same. On April 15th, when I entered the room, the sight of my patient sent chills over me, as the memory of the second case reported was brought to my mind. The expression of the face was exactly the same—it was pale and perspiring; the temperature was 94°, the pulse 60, and respiration 16. The patient was delirious during the night and the nurse had to hold him in bed. The delirium came on after waking from a "quiet and nice sleep," I was informed; he had rational intervals, but required to be held most of the time.

I prescribed the following:

R.—Tr. digitalis	jss.
Ammon. carb.	3ij.
Spt. frumenti	3iv.

Sig.—3ij to be given every hour.

I ordered hot water to his feet and that he be wrapped in warm blankets. On April 16th the temperature was 97.5°, pulse 70, mind rational, and appetite better. On April 17th the temperature was normal. I dismissed the case, which made a good recovery.

I never could satisfy myself as to the cause of the sudden maniacal delirium coming on after the fever was all gone. I read all the text-books on practice that I could get (some dozen or more) and I found in none of them anything that enlightened me on the cases. The only solution of the question I find is in works on insanity—for example, that of Griesinger, who gives an account of insanity following pneumonia and other febrile diseases. Blandford also reports cases and cites Weber on the subject in the *Medico-Chirurgical Transactions*, vol. xlviii. Dr. Clouston in his *Morisonian Lectures*, 1875, also gives particulars of ten cases of "post-febrile insanity."

The common features that strike one in these three cases are the youth of the patients, the appearance of the mania after a sound sleep, its short duration, and the fact that in all three the pneumonia was right-sided. They were all of neurotic families. The fatal termination of two of the cases by exhaustion would indicate the necessity of procuring sleep or rest at all hazards.

Were I to encounter a similar case, I should not hesitate to administer opium along with my former treatment.

TWO CASES OF FUNCTIONAL NERVOUS DISEASE TREATED BY TENOTOMY OF THE SUPERIOR AND INFERIOR RECTUS MUSCLES.

BY HOWARD F. HANSELL, M.D.,
OF PHILADELPHIA, PA.

THE following cases demonstrate, individually, the rôle played by a want of equilibrium in the ocular muscles, demanding constant and unconscious effort to maintain single and clear vision, in producing disturbances of the nervous system, simulating organic disease, and the marked amelioration of the symptoms following restoration of the equilibrium.

The conservative physician demands proof, or at least undisputed evidence of the trustworthiness of new therapeutic agents, before adopting the suggested line of treatment and risking his patient's health and his own

reputation by displacing older, well grounded, and authenticated methods, although perhaps unsatisfactory.

Current ophthalmic literature seems to indicate a more general belief in the theory, advanced by Stevens, of the causative relation of anomalies of the ocular muscles to functional disease of the nervous system, than prevailed for some years after the publication of his Belgian Prize Essay and his series of articles in the *Archives of Ophthalmology*, at least in so far that opportunities for personal investigation are availed of after therapeutic efforts in other directions have proven unsuccessful.

The subject is attractive to both ophthalmologist and neurologist—to the former, in widening his limited field of practice, and to the latter in suggesting for his consideration a means of cure, in properly selected cases which have not yielded to his other therapeutic resources.

I am indebted to my friend Dr. K. C. McWilliams, of Philadelphia, for the opportunity to see in consultation and to present to the attention and judgment of the profession the two cases described herewith. I have endeavored to limit the clinical histories to a bare statement of facts and have purposely omitted comments.

CASE I.—Miss R., aged sixteen, a school-girl, of good family history, with no inherited neurotic tendencies, consulted Dr. McWilliams in May, 1893, on account of epilepsy. Her mother related that the first seizure was excited by the horror of seeing a brother drown two years before. The attacks have very gradually increased in frequency until the present, when they recur

FIG. 1.



Miss R., one week before operation.

three and four times in the week. Without warning, she becomes unconscious, falls if standing, has a slight general muscular spasm or convulsion, recovers after a few seconds, and eructates large quantities of gas. She complains also of severe headache and vertigo after an hour's close application to her books. She makes no mention of the facial spasm conspicuously shown in the photograph. In spite of treatment directed to both the nervous system and the eyes, by various specialists, during the past two years her symptoms have increased in severity. Refraction under atropin = $+0.75s.$ = $6/6$, O.U. Left hyperphoria 2° – 3° . Lateral muscular action inconstant; at times esophoria, more frequently exophoria. Occasional diplopia. No lesion of media or fundus.

Prisms to correct the hyperphoria were worn for one week with great benefit. On June 20th, tenotomy of the left superior rectus was practised and the muscular equilibrium established.

The relief to the epilepsy, headache, and vertigo was immediate and absolute, and to this date (February 6, 1894) has continued.

FIG. 2.



Miss R., a few days after operation.

CASE II.—Miss O., aged nineteen, a weaver, without inherited diathesis, consulted Dr. McWilliams, October 13, 1893, complaining of severe asthenopia of six months' duration. Attempts to use the eyes for close work were attended with pain in the head and eyes and frequently with nausea, vertigo, and loss of consciousness, without general muscular spasms. In the absence of known organic disease and from the close connection of the periods of unconsciousness with use of the eyes at the near-point, the girl properly concluded that the source of her trouble must be in a derangement of the ocular apparatus. She had not placed herself under medical treatment during the preceding six months, but had consulted two ophthalmic surgeons and had worn various spherical lenses without benefit. The diplopia has recently become a nearly constant symptom. Left hyperphoria = 4° . Exophoria alternating with esophoria at 6 m. Exophoria in accommodation. Refraction under atropin = $1D = 6/6$, O.U. No lesion of media or fundus was present. Prisms correcting the hyperphoria were worn with comfort for seven days. October 29th, tenotomy of the left superior and right inferior rectus gave perfect binocular fixation.

Miss O. has been relieved of headache, vertigo, and fainting attacks and has been able to resume her occupation. She still has some asthenopia in reading.

These cases demonstrate the necessity for including an examination of the ocular apparatus in determining the cause of functional disease of the nervous system.

A CASE OF PRIMARY CARCINOMA OF THE BODY OF A DIVIDED UTERUS.

BY CHARLES B. PENROSE, M.D.,

PROFESSOR OF GYNECOLOGY IN THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

THE following case of primary carcinoma of the body of a divided uterus possesses enough points of pathologic interest to merit report:

M. L., a white woman, forty-nine years old, was admitted to the hospital of the University of Pennsylvania in September, 1893. Menstruation had begun in her sixteenth year and had always been irregular, occurring every two, three, or four weeks. The bleeding had

always been excessive and had continued from one to three weeks. There had been no dysmenorrhea. The last menstrual period had occurred five months before admission to the hospital.

For about one year before admission she had suffered with pain in the hypogastric and sacral regions, increasing vesical and rectal tenesmus, and increasing loss of strength and weight. There had been no leukorrhea. She was unmarried and had never been pregnant. Her appearance upon admission was anemic. The skin was sallow; there was general emaciation. The temperature was 100°, the pulse 138.

Examination showed normal external genitals. The ostium vaginae was normal in size. The vagina was divided into lateral halves by a fleshy septum in the median line, extending from a half-inch above the ostium to the uterus. Into each half of the vagina projected a cervix uteri of normal size and shape. A hard polyp—about a half-inch in diameter—protruded from the os of the right cervix. The uterus was irregular in shape, nodular, much increased in size, and adherent.

The history of the case—the irregular profuse bleeding from the uterus, the delayed menopause, the pelvic pain and tenesmus, and the emaciated and sallow appearance occurring at the menopause—suggested the diagnosis of uterine fibroid which had undergone sarcomatous degeneration. The physical examination revealing a hard uterine polyp and an enlarged nodular uterus, increased the probability of this diagnosis.

Exploratory celiotomy was performed two weeks after admission. The radical operation was found to be impossible, as the uterus was adherent to the sigmoid and other pelvic structures by extension of the tumor. Eight or ten inches of the sigmoid flexure and the descending colon were involved. After recovery from this operation the woman left the hospital, and died of exhaustion two months later. The uterus, vagina, and vulva were removed post-mortem, and were submitted to pathologic examination by Dr. Beyer.

Pathologic Report.—Growing from and infiltrating the uterine body is a tumor the size of a cocoanut. The cervixes are equal and well-developed, of normal size, and patent. From the right cervical canal grows a mucous polyp about the size of a hickory-nut. The uterus is divided into two lateral parts by a septum extending to within a half-inch of the fundus. The uterine cavities are about the same size, and of the normal length. The vaginae are well-formed, of equal size, admitting easily two fingers. The septum extends to within a half-inch of the ostium vaginae; below this there is, posteriorly and anteriorly, a partial septum. The vaginal walls are three-quarters of an inch in thickness and carcinomatous infiltration can be detected to within an inch of the vulva. The base of the bladder is infiltrated by carcinoma. Microscopic sections from the uterine bodies and the cervixes show complete, and from the posterior bladder and vaginal walls partial, carcinomatous infiltration. The carcinoma has evidently originated in the body of the uterus and has secondarily involved the cervixes, bladder, and vaginal wall.

The fact that the microscope showed that the vaginal walls were infiltrated with carcinomatous tissue to within one inch of the vulva is of great interest from the opera-

tive point of view. It shows the impossibility in any case of malignant disease of ascertaining with the eye or finger, at the time of operation, the extent to which the disease had infiltrated. At the time of the exploratory operation, two months before death, the vagina and vaginal cervixes appeared perfectly healthy, and yet the microscope would probably have shown beginning carcinomatous change. It is probable that many cases of so-called recurrence after hysterectomy for malignant disease are really cases of continuation of a pathologic process which had been unrecognized at the operation.

THERAPEUTIC NOTE.

A CASE OF PAROXYSMAL TACHYCARDIA, OF LONG STANDING, RELIEVED BY THE USE OF BEECHWOOD CREOSOTE.

BY W. T. S. CORNETT, M.D.,
OF MADISON, INDIANA.

It is proper to state that the writer is both physician and patient in the case to be described. The patient is an octogenarian, and for the last forty years has been more or less subject to chronic rheumatism. Twenty years ago, after taking unaccustomed exercise on foot for several days in succession, I became much fatigued, and, as a consequence, the rheumatism was aggravated. Shortly after this increase of rheumatism, obscure disease set in, difficult to diagnosticate, but which, on further observation and study, proved to be endocarditis. This attack occurred late in the fall, and I was confined to bed most of the time all winter with a low grade of fever, and with persistent insomnia. I was not conscious of having slept at any time during the winter, yet there must have been unnoticed sleep. No hypnotics were used. There was one paroxysm of pseudo angina pectoris during the winter, which was promptly relieved by swallowing a spoonful of ether that happened to be at hand. When spring came, the febrile condition subsided, and sleep returned, and outdoor exercise was also resumed.

There are members of the profession who think that rheumatic endocarditis occurs only in the acute form of the disease, but there is high authority for saying that it also occurs in the chronic form. Endocarditis seldom proves fatal, but those who are so unfortunate as to have had it seldom, if ever, completely recover from its consequences. Paroxysmal tachycardia is the result in the case under consideration. Shortly after recovery from the endocarditis, I would awake at night, finding myself too hot, and the pulse up to 120 or 130 per minute, making the impression on my mind that I was having an attack of fever that would confine me to bed; but to my surprise, when morning came, the pulse would be down to 70, and the sense of heat gone. These paroxysms did not occur every night, or every other night, or at any particular hour of the night, but always at unexpected times. After a time, they commenced occurring in the daytime, often many of them per diem, and most of them of short duration. These paroxysms were unaccompanied by pain, but I could always tell when they occurred by a sense of commotion at the heart. Then placing the finger upon the pulse, and holding it there a sufficient length of time, it would be found to drop sud-

denly from 120 or 130 to normal (70). This is a paroxysm of tachycardia, of sudden and unexpected onset, and with sudden termination at an uncertain period. I was thus afflicted for twenty years, when a bronchial trouble occurred, with a glutinous expectoration, very difficult to eject from the throat. For this bronchial trouble it was determined to test beechwood creosote as a remedy. Under its use for a week or ten days the expectoration was relieved, the cough mitigated, and, to my surprise and gratification, the paroxysmal tachycardia had disappeared. The sudden cessation of this long-standing motor affection of the heart can be attributed to nothing but the action of the creosote. I had for a long time believed that these paroxysms were caused by aortic regurgitation from valvular insufficiency, causing the heart to struggle for the relief of the distended ventricle; this being accomplished, the pulse would suddenly fall to normal. The action of the creosote in this case showed conclusively that the tachycardia was not caused by valvular insufficiency, but was purely functional. Post-mortem examinations in other cases have shown that the affection under consideration can, and does, have an existence when there is no structural disease of the heart. Dr. G. W. Jacoby read a paper some time ago before the Academy of Medicine in New York, in which he says that paroxysmal tachycardia is a disease of adult life, the etiology being obscure. "The best-established causes are bodily and cerebral overwork. In these cases, it seems probable that the condition is a bulbar neurosis." Dr. Herter referred to a case in a man who suffered from intestinal indigestion, and suggested that the mechanical distention of the colon and other portions of the intestines, as well as the poisonous products of indigestion taken into the blood, may act as a cause of the paroxysms.

Under the use of creosote three times per day I have now had exemption for more than seven months, with the exception of a few slight returns when the medicine has been neglected. Cure, in the proper sense of that term, is not claimed in this case, but exemption is being purchased at so cheap a rate that it is nearly equivalent to cure. The relief is very great indeed.

The question now arises as to the *modus operandi* of creosote in the case under consideration. It is admitted that an answer completely satisfactory to this question cannot now be given. The heart, after the attack of endocarditis, has been left in an irritable condition, from which complete recovery is perhaps impossible, especially in one of advanced age. Creosote is a tonic, and the most reliable intestinal disinfectant of which I know. It prevents fermentation in the stomach and intestines, and thus there are no poisonous products to be absorbed and taken into the blood, and there is high authority for saying that it combines with and renders innocuous poisonous products that reach the blood from other sources. "It is interesting to note that quite recent researches indicate that the good effects of the creosote, or guaiacol treatment of pulmonary tuberculosis, are due neither to the colyptic (or development-hindering) properties of guaiacol, as some authors, including Guttman, the originator of the treatment, believe, nor purely to its stomachic and tonic virtues (as others have asserted), but to the fact that it forms compounds, eliminable from the blood in a dissolved state, with the toxic

albuminous by-products of the activity of the tubercle-bacillus. (Hoelscher and Seifert.) It is to these albuminoids that the fever, night-sweats, and disturbances of appetite, digestion, and general well-being must be ascribed, and with their removal or conversion into inert compounds, all these symptoms disappear." (See Helbing's *Modern Materia Medica*, 1893.) Creosote lessens the irritability of the bronchial tubes, and thus frequently relieves cough. Two-thirds of the creosote that enters the blood is eliminated by the kidneys, and the lining membrane of the heart is constantly being bathed with blood holding the medicine in solution as long as the treatment is continued.

There are several grades of creosote to be found in the shops, made from coal-tar. These should never be used as medicines. Creosote made from beechwood tar, and with a reliable brand, should always be prescribed. The dose in the case under consideration was one drop three times a day, after eating, and now, at the end of seven months, has not exceeded two drops three times a day.

NEW DEVICE.

AN AXONOMETER.

BY JAMES THORINGTON, M.D.,
INSTRUCTOR IN DISEASES OF THE EYE IN THE PHILADELPHIA
POLYCLINIC.

IN making use of the shadow-test as a ready and rapid method of estimating errors of refraction, the direction of the principal meridians of corneal curvature are often difficult to determine, and the statement of the patient must be accepted when confirming the correction, or if there is still uncertainty, the ophthalmometer of Javal must be brought into use.

At my suggestion, Messrs. Bonschur & Holmes, of this city, have constructed a very simple instrument, which, for want of a better name, I have called an axonometer, a cut of which is here shown. It is a gutta-



percha disc, one and one-half millimeters in thickness, of the diameter of the ordinary trial-lens and mounted in a cell of the trial set with a milled edge. It has a central round opening twelve millimeters in diameter, the diameter of the average cornea at its base.

Two heavy white lines, one on each side, pass from the circumference horizontally across to the central opening, bisecting the disc. To use the axonometer, place it in the front opening of the trial-frame, and with the patient seated erect, and the frame accurately adjusted so that the cornea of the eye to be refracted

occupies the central opening, proceed as in the usual method of making the shadow-test.

As soon as that lens is found which corrects the meridian of lowest refraction, and the band of light appears distinct, turn the axonometer slowly until the two heavy white lines accurately coincide, or appear to make one continuous line with the band of light. The degree-mark on the trial-frame to which the heavy white lines then point is the exact axis for the cylinder.

The little device seems to possess the following points of merit:

1. Simplicity.
2. Accuracy.
3. Small expense.
4. It covers an unnecessary part of the trial-lens, which too frequently gives annoying reflexes and images.
5. It saves time, avoids the statement of the patient, and renders the ophthalmometer unnecessary.
6. Its color (black) absorbs the superfluous light-rays from the skiascope, and gives a stronger contrast to the reflex and central shadow.
7. Limiting the field of vision in children, it permits of more concentrated attention.
8. For children and nervous patients, when it is difficult to use the ophthalmometer, this simple appliance is of great service.

To add to the usefulness of this instrument (which is also made plain, as described), I have had stamped on its periphery, in white lines and figures, the degrees in reverse order to those on the trial-frame, thus making it a very serviceable cylinder protractor.

1630 ARCH STREET.

MEDICAL PROGRESS.

A Woman with Two Distinct Uteri.—At a recent meeting of the Philadelphia County Medical Society, Dr. HANNAH T. CROASDALE reported the case of a woman, aged sixty-three years, who came under observation for treatment for an abdominal tumor. Twenty years before, she had noticed some enlargement of the abdomen, which in five years had reached its existing dimensions. No discomfort had been felt (except from the size) until recently, when she had experienced pain and pressure-symptoms, and the bladder and rectum had become very irritable. The menopause occurred at fifty, and at that time the woman was confined to bed for several weeks, but no especial reason for this could be learned. Her condition on admission was not very good, although no definite trouble could be found except a systolic heart-murmur. Lungs and kidneys were in good condition. Pelvic examination externally showed a regular enlargement of the abdomen, and there was percussion-dullness from the symphysis pubis to the umbilicus and almost from crest to crest of the ilia, with a small area of tympany on the left side.

On making digital examination *per vaginam* the cervix uteri seemed small, apparently having undergone senile atrophy, and it was pushed backward and high in the pelvis, the whole uterus also being pushed backward. It was thought that the fundus looked forward, but the uterine sound did not pass readily, hence its use was not persisted in. What seemed to be a fluctuating tumor

was appreciated *per vaginam* to the right of the uterus and above the brim of the pelvis, and a small, tender mass was felt in the right parametrium. The patient complained of pain and tenderness when touched, especially on the right side. A diagnosis of fibro-cystic tumor of, probably, the uterus was made, and, after the usual preparation, the patient was etherized and the abdominal cavity opened. The omentum was found to be greatly thickened and congested, and extensively attached to the tumor beneath it and to the pelvic walls. It was necessary to ligate and cut in many places, and upon pushing the omentum aside the tumor looked pale and felt and looked like a fluctuating mass. A trocar and canula was used, but no fluid flowed through the canula.

The incision was now extended in the abdominal wall upward sufficiently to admit of the withdrawal of the mass entire.

A small nodular mass, attached to the lower part of the tumor, having the shape and size of the uterus and furnished with what seemed to be the uterine appendages, was drawn out of the lower end of the wound, and was found to be attached by a small cord-like pedicle to the pelvic brim, a little below the crest of the left ilium. Another body, to all appearances a uterus with its appendages, was found in the pelvic cavity and fixed by the usual attachments, but crowded into Douglas' pouch. The slender pedicle, not larger than a pencil, which tethered the smaller mass to the pelvic wall, was ligated and cut.

The tumor being now freed from its attachments, which were omental entirely, was lifted from its bed. This growth must have derived most, if not all, of its nourishment from the establishment of the circulation through the omentum, for it had almost severed its attachment from other structures, and the omental vessels were enormously enlarged.

The abdominal cavity was cleansed and the opening closed with silkworm sutures, the dressings applied, and the patient put to bed. Reaction was prompt and good. The temperature for the first four days ranged from 99° F. to 100.4° F. It then rose, and on the sixth day reached 102.6° F., and on the ninth day 105.4° F., when the woman died of septic intoxication.

The autopsy showed purulent infiltration at various points in the pelvic cavity. There was also found at the autopsy a uterus and appendages in a healthy condition and in the proper position.

Sections from the little body which hung from the large tumor were sent to two pathologists. One reported the specimen as being that of the structure of a fibromyoma. The other pronounced it uterine tissue, and some structure resembling the endometrium.

This second uterus had developed from its *cervix* a fibro-myoma. As it grew too large for the pelvic cavity and rose above the brim, the little organ was inverted and so hung suspended from it.

It measured one and one-quarter inches from the internal os to the fundus. The length and size of the cervical portion were exaggerated, evidently from the tension upon it, but as it was cut open in the fresh state it showed quite distinctly the arbor vite arrangement of the mucous membrane lining the canal, and the lips and cervical canal were quite natural in appearance. The

os internum on the left side admitted the passage of a small probe, which passed a little distance along the Fallopian tube. On the opposite side the opening would not admit of the passage of the probe. There were two small ovaries which, on being cut open, showed on macroscopic inspection ovarian tissue. No microscopic examination of this tissue had been made. In the cervical canal, just below the internal os, was a small calcareous deposit.

Successful Dilatation of a Constricted Pylorus.—O'HARA (*Australian Medical Journal*, vol. xv, No. 12, p. 615) has reported the case of a woman, thirty-nine years old, who for two years had suffered with impaired digestion and failure of appetite, and who for six or eight months had been growing progressively worse. There was frequent nausea, attended with vomiting, especially in the morning. Food was frequently rejected shortly after being taken. The ingestion of food was attended with a sense of weight and oppression in the epigastrium, flushing of the face, a bad taste, and dryness of the mouth, with palpitation of the heart. For a year there had been slight redness on the left side of the root of the nose, which had spread to the alæ, and later appeared on the forehead and the cheeks. This condition had been growing worse for three months, and was attended with tension of the skin, bright hyperemia, and burning pain. Forty-two pounds in weight had been lost in five months. On physical examination the stomach appeared dilated and the pylorus thickened. For a time lavage and tonic treatment were employed, but the symptoms persisting, an exploratory examination of the pylorus was determined upon. The contents of the stomach were evacuated by siphonage, and boric acid introduced into the cavity. After the abdominal cavity had been opened, an incision was made with a blunt scissors into the anterior wall of the stomach near the pylorus. The gastric contents were caught upon sponges. The pyloric orifice was found to be constricted, and by means of an ivory glove-stretcher was sufficiently dilated to admit a finger. The dilatation was continued until another finger could be introduced. The wound was then closed and the patient returned to bed. Recovery was uninterrupted, and in the course of the following six weeks the woman had gained twelve pounds in weight. Three years later her health was still good.

Diphtheria of the External Auditory Canal.—TREITEL (*Deutsche medicinische Wochenschrift*, 1893, No. 52, p. 1388) has reported a case of pharyngeal diphtheria, in a child three years old, in which, notwithstanding the absence of involvement of the middle ear, membrane formed in both external auditory canals, upon the left side involving also the auricle. Bacteriologic examination of a portion removed disclosed the presence of bacteria that resembled diphtheria-bacilli, but cultures were unsuccessful. The child died from cardiac asthenia.

THERAPEUTIC NOTES.

Poisoning by Chloralose.—WILLIAMS (*Practitioner*, No. 308, p. 98) has reported the case of a highly neurotic woman, forty-two years of age, in whom toxic symptoms appeared after taking ten grains of chloralose on each

of two successive nights. The patient had for a number of years suffered from "spinal neuralgia," among other symptoms of "neurasthenia," although not hysterical. Her pulse was always feeble and small, though regular, but there was no indication of cardiac disease. Complaining of neuralgic pain in the lumbar region, extending round the abdomen and preventing sleep, the woman was one night given ten grains of chloralose suspended in milk, with which she had a fairly good night. She complained of the bad dreams that the drug had induced, but there were no disagreeable after-effects on the following morning. At night the woman took another dose of ten grains of chloralose. Half an hour later she became very excited and restless, and soon began calling out. This condition of acute delirious mania continued for several hours, the woman appearing conscious of the presence of others, but apparently not recognizing anyone. Her pulse was unusually good; the pupils were unaffected; restraint was forcibly resisted, especially on attempts to give a hypodermatic injection, such as she had frequently received on other occasions and the nature of which she appeared to recognize. An injection of quarter of a grain of morphin, followed in half an hour by another of a sixth of a grain, did not produce any quieting effect at all. Recovery, however, took place in the course of a few hours more, although the woman was wholly unconscious of what had taken place. On the following morning she was prostrate, but without headache, and without recollection of anything that had happened after the taking of the dose of chloralose.

Poisoning by Diachylon Ointment.—PASSLER (*Münchener medicinische Wochenschrift*, 1894, No. 5, p. 84) has reported the case of a child, a year and a quarter old, that had an attack of erysipelas of the head at the age of four weeks, from which it made a good recovery, without complication. Shortly thereafter a generalized eczema developed, which resisted ordinary therapeutic measures. For this condition a gauze bandage, upon which a thin layer of diachylon ointment was spread, was applied to the lower extremities. The eczema soon assumed an improved appearance, but the child became unusually quiet and apathetic, while marked edema developed in the lower extremities, and but a few drops of dark, cloudy urine were passed in the twenty-four hours. The bandages were at once removed, and the ointment detached by means of a warm bath. Examination of the urine disclosed the presence of albumin, blood, colorless and red corpuscles, hyaline and granular casts, with epithelial cells and blood-cells. The mucous membrane of the mouth was red and swollen, and there was an excessive secretion of saliva. The child gradually improved and the symptoms successively subsided, although dilatation of the left ventricle made its appearance. All of the abnormal manifestations, however, finally disappeared. The presence of lead could not be detected in the urine, and there was no blue line on the gums. Partly by a process of exclusion, and partly by a correlation of attendant circumstances, the conclusion was reached that the whole train of symptoms owed their origin to the absorption of the lead contained in the ointment employed in the treatment of the eczema.

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THE COMING SANATORIUM.

AN artificial sanatorium, ideal in character and strictly unobjectionable as a refuge for invalids, does not exist. In fact, until the more recent evolutions and revelations in biologic, physiologic, and therapeutic knowledge had made known the decided and growing necessity for it, such an institution was an impossibility, because yet uncalled for and unconceived. But the search-light of alert and reinforced modern science has now thoroughly warned us of the inadequacy of the older methods of constructing and administering health-institutions. The demand for a new system and new conditions to meet the new requirements and to obviate the systems now in vogue, is being widely recognized and is daily becoming more pronounced. As evidence of this fact, leading medical journals and sanitary publications are all directly or indirectly agitating the subject; and already in several States, legislation looking toward a better appreciation of dangers that constantly menace the community through non-observance of sanitary precautions formerly overlooked, but now known to be of vital importance, is being enacted. Witness the action of the American Health Association, the Pan-American Medical Congress, the French League for the Prevention of Tuberculosis, the Philadelphia Society for the

Prevention of Tuberculosis, etc., as referred to in a recent issue of THE NEWS.

The revolution, or more properly the stage of evolution, is therefore upon us, whether we fully realize it or not.

To elevate the art of medicine to a standard quite equal to that already attained by her sister arts, and to advance her well on toward the dignity of a science, to which proud appellation she as yet has no strongly-valid claim, at least two fundamental objects must be kept to the fore:

1. To make more generally available, in the treatment of human diseases, defects, and deformities, all such rational methods, influences, agencies, processes, materials, and methods of procedure as have thus far proved efficacious in preventing the onset of disease, in removing all removable conditions on which physical impairment depends, and in overcoming impediments to normal functional activity, thereby "curing" or greatly ameliorating many forms of disease that, heretofore considered incurable, are now known to be amenable to a judicious application of methods, influences, and resources which until recently were either unknown or unappreciated.

2. The inculcation and wider dissemination of *sanatory*, as well as *sanitary* science, in accordance with the most advanced light at present available on these vitally important subjects, through modern biologic, physiologic, and chemic researches and demonstrations.

To inaugurate this movement in an efficient, thorough, and practical manner will require a restatement and revival of the now almost obsolete Art of Living, and the adoption of a new system of sanatory education, fundamental in character, based on natural laws and the revelations of modern science, and calculated to develop, complement, and harmonize this complex embodiment we call human nature, considered in all its aspects—physical, mental, social, psychic, and moral.

True, this work promises most for the generations to come, but it must have its inception with those who are now on the stage and championing the cause of vital science. For present-day benefits we must look to a new departure in the utilization of prophylactic and remedial agencies, which requires a radical innovation in the methods of founding, equipping, and administering sanatoria and every kind of resort for invalids.

If there be one hygienic law better established

than another it is that zymosis, contagion, and infection are the direct means of originating and disseminating many, if not all, of the widely prevailing and frightfully fatal chronic diseases, a majority of which have not hitherto been classed as either infectious or contagious. Hence, any system of treatment that does not fully and practically recognize this law must necessarily fall short of the high degree of success now known to be possible through a careful observance of the simple but imperative laws of asepsis, antisepsis, and isolation.

There can be no question but that a large number of cases, especially of tuberculous disease, which have been greatly benefited or virtually cured by a prompt resort to a propitious climate and judicious treatment, have subsequently suffered fatal relapse through being exposed to reinfection by the dried and pulverized uncared-for discharges from other cases.

Hence, if we make any pretensions to scientific consistency, we must unhesitatingly condemn and discard the prevailing practice of congregating invalids of any class whatever in crowded and no matter how "palatial" hotel-hospitals, whether they be well or illy located as to climate, natural auxiliaries, or scenic beauty. Instead of single, immense, and imposing structures, with "capacity for a thousand guests" (and countless ghosts, recruited annually from the ranks of former guests), in which large numbers of the miscellaneous afflicted are intermittently massed and brought into more or less constant and intimate contact, our invalids must be provided with *detached dwellings*, dissociated cottages, and private villas, according to their tastes and means, all to be constructed, adapted, and furnished with strict regard to the laws of asepsis and the needs and comfort of patients. This is a consummation imperatively demanded by the present attitude of sanitary science, and by accepted results of all the more recent studies and demonstrations in biology, physiology, and pathology. In no other way can the stringent and indispensable rules of prophylaxis, anti-contagion, and anti-infection be even approximately observed or enforced. In no other way can a health-seeking community or series of communities be so organized that immunity from contagion and infection—disease-transference—can be made a primary, paramount, and practical consideration.

Having solved the question of environment and habitation, it then devolves upon us to accord a more adequate and comprehensive recognition to

the yet imperfectly explored realm of the *remedii natura*. Every effort of Nature is aimed in one of three directions—building, repair, or reproduction. As physicians it is our principal office not to antagonize, but to direct and regulate these efforts. A judicious invocation of the almost limitless resources of Nature has therefore come to be held in such high esteem by advanced minds in the profession that it must hereafter be made a pronounced and prominent feature of every curative effort. Its range is virtually exhaustless and illimitable, yet a rational comprehension of its possibilities is being steadily developed. Its trio of controlling divinities, the three prime functions of all animal life, are *aëration, nutrition and excretion*.

Aëration, as the results of half a century of physico-chemic experimentation have taught us, involves much more than the indifferently performed and greatly underrated act of respiration, important as is that commonplace function to the instant life and vital continuance of every animal organism. It is intimately involved in the relations of climate, local environment, habitation, exercise, clothing, and a thousand other modifying items and influences not usually coupled with it.

Nutrition includes everything in any way related to the vital commissariat—the building of the body, dietetics, the selection, composition, and preparation of food, and the accurate adaptation of food-elements to the wants of the organism, in health and in disease. The combined results of laboratory and clinical research and experimentation are fast making it possible to so direct and regulate the digestive and assimilative functions as to radically influence and control the activities of the entire organism, to the end that what has manifested itself as diseased action can be gradually changed into normal or healthy action; and as a consequence, the malady, whatever it may have been called, is overcome in the most thorough, rational, and lasting manner, without the delusive aid of palliatives, which merely obtund sensibilities and mask symptoms the cause of which they do not remove.

So, too, *excretion* embraces all the processes by which the system frees itself from waste products which, if retained, become virulent poisons and finally destroy the organism itself. If the emunctories are sluggish or overloaded, the deadly ptomaines and other products of organic decay accumulate. As long as elimination keeps pace with

organic disintegration health is possible. When the equilibrium normally existing between these two processes is disturbed, disease is the result, and it becomes only a matter of time when organic dissolution will supervene. Hence, a majority of remedial measures that may be properly called curative are directed toward the acceleration of excretory processes, due regard being had for an adequate supply of proper material for replenishment and renewal.

Nor is it extravagant to assert that these three functions, considered in all their remotest bearings and relations, comprehend all that can be attempted toward the relief of those who are physically afflicted.

But it is not enough to heal the sick. Regained health is an inestimable boon for which suffering mortals stand ready to sacrifice everything at their command; but it loses half its value if its possessor does not learn how to retain it after it has been recovered. For this reason no health-institution is either complete or consistent that does not make adequate provision for the dissemination of sound and practical sanatory knowledge. It may be charged that the inculcation of such knowledge will trespass on the domain of the routine practitioner; but the present happiness and future advancement of the race are objects of paramount importance to the personal and pecuniary interests of any one class, interest, or profession. Besides, it is already conceded that the physician of the future will be a conservator of health, not a curer of disease, his art having far more to do with prophylaxis than with treatment. *The day cannot now be far distant when the existence of preventable disease will be considered a public or private crime, and when medical men will be required to study and remove causes, instead of tinkering and philosophizing over their inevitable effects.*

In comparison with the number born, how few live on to even the reasonably ripe age of threescore and ten. Judging by analogy from the known laws of biology and physiology, there is no valid reason why the average human being should not live in comfort and physical enjoyment, retaining all his faculties and functions, to the rounded term of a century; whereas, but a minority can recall a dozen strictly healthy weeks since the trying days of chicken-pox and measles. Many of us are practically toothless at twenty, bare-pated at thirty, and superannuated at fifty.

REFORMS IN COLLEGE ATHLETICS.

IN THE NEWS of November 18, 1893, we ventured to call attention to the excesses permitted in the name of foot-ball by our colleges, and the consequent injury to true athleticism, to genuine educational interests, and to general social morality thereby. At the time of the appearance of our protest there was not only no considerable opposition to the game, but all important newspapers and college authorities were enthusiastically encouraging the fatal tendency. College professors and presidents were hurraing themselves hoarse and contributing their house-doors and wood-piles for bonfires to celebrate foot-ball victories.

Following upon our word of warning the editor of THE NEWS had a *mauvais quart d'heure*. Friends warned of the danger of taking the unpopular side, and of the wisdom of obedience to the *Zeitgeist*. One college president wrote a personal letter that we had certainly exaggerated, and that our conclusion was not that of those who had dispassionately studied the game. A few newspapers coarsely abused, and all opponents agreed that we did not know anything of the game. We unflinchingly persisted in our contention, clinching the argument with indubitable facts—and very soon another public sentiment began to manifest itself. One powerful newspaper after another began to speak out boldly against the excesses of foot-ball and of intercollegiate contests, one great journal most flatly and completely changing its entire attitude in twenty-four hours. Despite the casuistic defences and lectures in great magazines and in Christian pulpits by learned professors and eminent divines, it was soon found that there was more sanity in the people than in at least some of the educational leaders. The *Zeitgeist* had changed its mind! Almost without exception the newspapers of the whole country were soon found upon the right side. Then began to appear articles by a number of college presidents, showing (at last!) a healthy courage and a conservative common sense. There followed the strong, manly protest of the University of Virginia, of other colleges, and college-associations. Now, like a thunderbolt, comes PRESIDENT ELIOT'S authoritative pronouncement, in which every point contended for by THE NEWS is abundantly supported by one whose qualifications and interests are altogether beyond dispute. The University of Pennsylvania has promulgated a set of rules looking to reform of a determined character,

but still not sufficiently thoroughgoing. The Secretary of War and the Secretary of the Navy have forbidden future foot-ball contests between the cadets at West Point and Annapolis, "because such matches are detrimental to discipline and to the studies of the cadets." The victory may, therefore, be considered complete.

The victory, at least, so far as logic and expert authoritative opinion is concerned. But it must not be forgotten that the athletic associations and players are proceeding to their forced tasks, of remodelling the rules and subordinating college athletics to college duties, very much as a whipped schoolboy returns to his lessons. By open "interviews," by corporate action, or rather corporate silence, and by ill-concealed disgust, it is painfully apparent that the task is to them most nauseating. We beg them to take the matter seriously. There is no possible answer except assent, and loyal willing assent, to the fact that, as recently carried on, intercollegiate athletics do abuse, and do not educate, either the human body or the human mind, and that they are not for, but are against true education and social well-being. A game that in two countries, within two or three years, kills outright about a hundred players, and seriously injures a thousand or more, is not, in any sane or etymologic sense of the word, athletic. The element of danger necessary in healthy sport is not, of course, to be entirely eliminated, but when that element becomes the chief element, then it is high time to stop. The noteworthy statistics kindly supplied by DR. KEEN in another column should definitively settle the nonsensical claim that football is not excessively dangerous, and not more dangerous than other sports. The pity is that such an argument was needed—the facts being so patent to all. The men that founded and endowed our colleges, the glorious old Puritans, were not anemic namby-pambies or muscleless lackadaisicals, and in shunting education into modern "athletic" excesses certain of their modern representatives are false to the trusts imposed upon them. The growth of college-rowdyism is demonstrably due to these excesses, instead, as claimed, of "athletics" being an outlet and safety-valve of youthful animal spirits. The reception of a prize-fighter by Harvard students, and by a tremendous audience at the N. Y. Madison Square Garden last week, when a prolonged series of boxing contests (held for charity's sake!) delighted upper-tendom, are startling facts that display their own lessons to those

capable of appreciating them. The point we wish to emphasize is that the better part of the public is coming to recognize the true status of affairs, and that prudence would suggest to the disgruntled revisers of the rules a revision that does in reality revise, and that, in order to preserve what is good in athletic games, they must make a thoroughgoing reform, and altogether excise what is altogether bad.

EDITORIAL COMMENTS.

To Remove Certain Disabilities of the late Acting Assistant Surgeons, U. S. A.—A bill has been introduced into both houses of Congress having in view the commissioning by the President as acting assistant surgeons of the United States Army such private physicians as were employed as medical officers in the armies of the United States for a period of not less than three months and who were officially known as acting assistant surgeons of the United States Army, and whose services were honorably terminated; the date of employment as acting assistant surgeon to be the date of commission and muster into service, and the date of the honorable termination of service as acting assistant surgeon to be the date of discharge or muster out of service. It is not intended that any pay or allowance should be made by virtue of this act, or that the rank, pay, or emoluments of commissioned medical officers of the United States Army should in any way be affected. Such acting assistant surgeons as were disabled by reason of disease contracted or injury received in the military service are already entitled to pensions, under a law which assimilates them to the rank of first lieutenant of the military or marine corps. The object of the present bill is intended to remove a disability by reason of which, as non-commissioned officers, such acting assistant surgeons are denied admission to military organizations like the Loyal Legion and the Grand Army of the Republic. We see no objection against, but only good reasons in favor of the passage of this bill, which would confer official recognition upon a body of men whose services on the field entitle them to the warmest commendation and consideration. The bill has been read twice in the Senate and referred to the Committee on Military Affairs. It has also been introduced into the House of Representatives, referred to the Committee on Military Affairs, and ordered to be printed. It is requested that those who have been acting assistant surgeons, or are in sympathy with this movement, should communicate promptly with members of Congress and others who are in a position to give material assistance.

Overcrowding in the Medical Profession.—From figures given by the Berlin correspondent of the *Medical Press and Circular*, No. 2856, p. 115, it would appear that the relative and absolute number of medical men in Germany is increasing at a rate not behind that which has become a cause for concern in the United States. It can only be conceived that there must still be something exceedingly attractive about the study and the practice

of medicine that will take young men and women away from more lucrative pursuits to enter upon a life that is known to demand close application and hard work, without corresponding pecuniary remuneration. We must hope that this large increase in numbers will bring with it constant improvement in quality, professional and ethical. We fear, however, that the number of failures will be greater, but the successes will have to be won by real ability. The number of medical men in Germany at the close of the year 1892 was 20,500, whilst a year later it had increased to 21,621—a difference of 5.46 per cent. At the close of the year 1892 there were in Berlin 1636, and at the close of the year 1893, 1799 physicians—an increase of 10 per cent. During five years the increase has been 22.2 per cent. Throughout Prussia there are 12,851 medical men, an increase of 777 over the year 1892; in Bavaria there are 2431, an increase of 86; in Saxony 1563, an increase of 40; in Baden 855, an increase of 44; in Württemberg 739, an increase of 28; in Elsass-Lothringen 632, an increase of 33; in Hamburg 429, an increase of 8. The proportion of physicians to the population is 4.37 to 10,000, against 4.15 in 1892. In Hamburg the proportion is 6.98; in Bremen, 6.92, and in Lubeck, 6.11. Throughout Prussia the proportion is 4.28. The proportion is highest in the towns in which there are universities: In Strassburg, 17.8; in Halle, 12.1; in Munich, 11.9; in Berlin, 11.5; in Breslau, 11.3; in Königsberg, 10.6.

Subscriptions Free, the Advertisers Paying the Bills.—We have before us a medical journal that prints on its title-page, "Sent free to every member of the profession in ———." This has the decided merit of frankness. We have long been used to the method of exploitation in lay periodicals, consisting of giving a tremendous amount of so-called reading-matter at less than the cost of the printer's bill, but making fortunes by the advertisements secured through the large circulation. In a business sense this would seem to indicate that the price of advertisements or of subscriptions should be lowered. This "medical" journal has chosen to lower the subscription—and to zero! When such a method enters medicine as it has done—frankly in the case cited, secretly in many so-called medical journals—it is a cause for criticism. The good of the profession demands that every journal it supports, and every line of the reading-matter shall be written and published in the interests of medical science and ethics. There is only a certain amount of money that advertisers can afford to pay for advertising reputable and worthy things, because there is only a certain maximum sale for and profit in such things. It is the disreputable and worthless product that pays the big advertising bills. How can a reputable journal, published with true professional ideals, compete with journals published by the advertisers and solely in their interests? How can reputable physicians edit such journals? How can they write for them? How can they allow them to be delivered to their address?

A Singular Oversight.—In a paper occupying six entire pages of the *Journal of the American Medical Association* for February 10, 1894, Dr. J. E. Woodbridge refers to a large number of cases of typhoid fever, in which

he brought about almost miraculous cures by a "special" mode of treatment, which is merely hinted at. The only explanation that can be found for withholding the important information that might have made the paper a life-saving one is contained in the expressed fear of giving "to the world a treatment that on more thorough trial might prove to be a failure in the hands of more able but less enthusiastic practitioners, and the action of which I could not then and cannot now explain." Having thus plucked up courage to detail the results of this "special treatment," we earnestly hope that Dr. Woodbridge will hasten to give to the world the details of the method that in his hands has proved so incomparably successful. As the matter stands, we are at a loss to see how the editor of the *Journal* could give up so much valuable space to a paper that tells so little of value. Is a new secret nostrum to be fathered by and foisted upon the profession? If not, why not divulge its nature and method at once? The whole affair looks decidedly quackish.

The Pharmacy Act Declared Unconstitutional.—It is reported that a physician in the western part of Pennsylvania has been acquitted of a charge of violating the pharmacy law by compounding medicines without being a registered pharmacist. The prosecutor was the President of the State Pharmaceutical Board. The judge who delivered the opinion in the case is quoted as saying that the bill was framed in the interest of druggists and that it was unconstitutional.

REVIEWS.

A TREATISE ON HYGIENE AND PUBLIC HEALTH. Edited by THOMAS STEVENSON, M.D., F.R.C.P. Lond., Lecturer on Chemistry and on Medical Jurisprudence at Guy's Hospital; Official Analyst to the Home Office; and SHIRLEY F. MURPHY, President of the Incorporated Society of Medical Officers of Health; Medical Officer of Health of the Administrative County of London. In three volumes. Volume II. 8vo, pp. 847. Philadelphia: P. Blakiston, Son & Co., 1893.

THE second volume of this *Treatise on Hygiene and Public Health* contains a group of valuable and interesting monographs. It opens with an extensive article upon the "Pathology and Etiology of Infectious Diseases," by E. Klein, M.D., F.R.S. The subject is treated under the following sections: Section A includes general considerations of bacteria—morphologic, biologic, and technical; Section B, the specific or pathogenic bacteria, and Section C the specific diseases. The article closes with a very large group of illustrations made from photographs and colored sketches. They are, in the main, not especially good, and convey but little idea of that for which they were designed. This is particularly true of the colored plates giving the macroscopic appearances of growing cultures. The text is a fair presentation of the subject, though conspicuously biased in many points by the individual views of the author, which have not met with general acceptance outside of England. Considerable space is devoted to the so-called milk epidemics of scarlatina, and

among others the statement appears: "These milk epidemics are nowadays so easily recognized . . . that there is hardly a health-officer in this country (England¹) who has not had the opportunity . . . to himself investigate or become acquainted with such an epidemic." It appears to us singular that these outbreaks of scarlet fever due to milk should appear so frequently in England and escape observation in other countries. The chapter on the pathology and etiology of diphtheria is remarkable for the entire absence of any mention of the peculiar cell-necrosis described by Oertel in the tissues of the human subject dead of this disease, and by Welch and Flexner in animals that have succumbed to the experimental form of diphtheria. The comments upon the cultural peculiarities of the bacillus diphtheriae of Loeffler leave but little room for doubt that part, at least, of Klein's work on this subject has been done with organisms other than the genuine bacillus diphtheriae, and which have been mistaken for it. There are many details to which the specialist might take exception, but these do not diminish the value of the article for the general reader.

The monograph upon "The Natural History of Infectious Diseases," by T. W. Thompson, opens with some generalizations upon the history and causes of diseases. As each disease is considered it is treated under the following heads: Synonyms (Eng., Fr., Ger.); history and geographic distribution; periodicity; influence of climate and of seasons; mortality; fatality; influence of race, sex, age; modes of dissemination; period of incubation; and protection. It will be seen from these headings that the article contains much valuable and instructive matter.

"Smallpox and Vaccination," by John C. McVail, M.D., F.R.S.E., contains a history of the disease; its distribution; periodicity; fatality; cause and mode of dissemination; protection. Among other things, the article contains numerous charts that represent graphically the relative frequency of the disease in various localities, and in large groups of vaccinated and unvaccinated individuals.

The balance of the volume is given to articles on vital statistics; marine hygiene; military hygiene; disposal of the dead; and the medical officer of health. As a whole the volume is creditable alike to authors, editors, and publishers.

A TEXT-BOOK OF PHYSIOLOGY. By M. FOSTER, M.D., LL.D., F.R.S., Professor of Physiology in the University of Cambridge, and Fellow of Trinity College, Cambridge. With illustrations. Sixth edition. Part I, comprising Book I: Blood. The Tissues of Movement. The Vascular Mechanism. New York and London: MacMillan & Co., 1893.

No more conclusive proof can be offered of the continued interest and activity in the investigation of physiologic processes than the appearance of numerous manuals, compends, and text-books, and the necessity for new and revised editions of those that have already found favor with students and physicians. It is a recognition of the truth that not only histology, but also physiology, or a complete knowledge of the physico-

chemic processes that underlie all normal vital phenomena, constitutes the essential basis for a correct interpretation of pathologic and clinical phenomena.

Among the many books that have been published within the last ten years none has met all the requirements so satisfactorily and attained so wide an acceptance as the text-book of Prof. Michael Foster. Originally published as a single volume of small dimensions, it has grown with the advance of physiologic knowledge, until it now presents itself in five complete parts, aggregating nearly two thousand pages. It is not difficult to account for the popularity of this work in both England and America. The clearness of conception and the judicious presentation of physiologic problems are unsurpassed, and make the work a readable and instructive one for both advanced students and practitioners. Without overburdening the text with descriptions of apparatus or unnecessary anatomic details, the central idea of each subject is elucidated and illustrated by appropriate histologic facts and brief statements of the principles involved in any given physiologic method.

Of this sixth edition several parts have already been published. The original appendix on "The Chemical Basis of the Animal Body," written by A. Sheridan Lea, appeared in an enlarged and revised form as a separate but complementary part about a year ago. Part IV, comprising an account of the physiology of the special senses, was also published last winter. This section of the work was very much enlarged over that of the previous editions. Part I, which has just been issued, comprises the blood, the tissues of movement, and the vascular apparatus, and is practically a reprint of the fifth edition, with the exception of some thirty pages of additional matter pertaining to the cardiac beat. The author here revises the former account of the beat, and incorporates, with customary clearness, the results of the investigations of Hürthle, Frey and Krehl, and others, as to the characters of the endocardial pressure and its relation to the aortic pressure, and the bearing which both have on the pulse-wave and its interpretations.

The succeeding part of this valuable work will no doubt bear the impress of the author's wide and accurate knowledge of the subject.

ESSENTIALS OF MINOR SURGERY, BANDAGING, AND VENEREAL DISEASES. By EDWARD MARTIN, A.M., M.D. Second edition, revised and enlarged. 78 illustrations. (Saunders' Question-Compend, No. 12.) Philadelphia: W. B. Saunders, 1893.

In preparing the second edition of this little book the author has revised it thoroughly so as to bring it, as he says in his preface, "up to the present standard of surgical practice." The section on the roller bandage is improved by the excellent illustrations and descriptions borrowed from the *American Text-book of Surgery*. These cuts are admirably executed and clearly portray the various bandages they serve to illustrate, and will doubtless be appreciated by students, for whose use the book is intended.

In the 166 pages which comprise this volume the author has succeeded in getting over his ground, in question and answer style, as well as could be expected. The answers to the questions, while clearly expressed, and therefore easily fixed in the student's memory,

¹ Parenthesis ours.

sometimes tend to be superficial, a fault which, however, in a book like this it is not easy to avoid.

TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF WISCONSIN FOR THE YEAR 1893. Vol. XXVII. Madison, Wis. : Tracy, Gibbs & Co., 1893.

THE quality of the papers contained in this volume is for the most part good, and gives evidence of the high standard of the scientific proceedings of the meetings at which they were read. Contributions of notable excellence are: that by Levings on the "Present Status of Surgery," in which he admirably exposes the advances of modern surgery; a paper by Reineking on the "Surgery of the Trifacial Nerve"; "Intestinal Anastomosis," by Ladd; "Pleural Effusions: their Diagnosis and Treatment," by Batchelor; "Renal Neoplasms, with Report of Two Cases of Nephrectomy," by Mackie; Copeland's paper on "Drainage after Operations on the Pelvic Organs"; Hamilton's on "Tumors of the Bladder"; and Würdemann's on "The Treatment of Chronic Suppuration of the Middle Ear by Removal of Carious Ossicles, Necrosed Bone, and other Obstructions in the Tympanum."

The book has a neat appearance, and the typography is excellent.

CORRESPONDENCE.

LETTER FROM LONDON.

[From Our Special Correspondent.]

Who Shall Treat Diseases of the Digestive Tract?—The Treatment of Influenza, of Diphtheria, and of Rectal Disease—Scurvy in Children—Brunton on Headaches—The Allys or Garlic Treatment of Tuberculosis.

"SURGERY," it has been said, "is superficial medicine." To which, by way of retort, it has been added that medicine is surgery in the dark. Mr. C. H. Watts Parkinson, an eminent local practitioner in the Southwest of England, and President of the Bournemouth Medical Society, in one of those homely and unscientific addresses which often contain many grains of cultivated experience and sound common sense, observed that the treatment of inflammation of the bowels—or typhlitis, perityphlitis, and appendicitis—seemed now to be passing from the physician to the surgeon. In these days of antiseptic surgery it is dangerous to take a case of gastric disease to a surgeon for fear he will want to explore the interior, and it seems that every case of inflammation in the right flank is due, or ought to be due, to that wretched mistake of Nature—the appendix ceci. But, after all, are these cases so dangerous, as a rule, that they need an operation? How common they are, and how few are serious! The only fatal case he had seen was in consultation, in which the medical man had been treating with a course of white mixture. And here he recommended the method of examining the liver and abdomen suggested recently by Mr. Arbuthnot Lane, of Guy's, in the *British Medical Journal*, viz., making the patient sit astride on a chair, with the body well bent forward and the arms hanging over the chair, the surgeon standing behind and passing his arms round the body.

Of course, he had something to say about the treat-

ment of influenza. His contribution was as follows: "As a general routine treatment, I believe in salicylate of soda, to which I always add a little nux vomica, milk-diet, with a little whiskey and milk when the crisis has set in and perspiration is profuse, and plenty of blankets. I have had to make the *experimentum in corpore vili* three or four times, and whereas before I took the salicylates I was laid up a week or more, the last two attacks, apparently equally severe (temperature from 102° to 103°), only kept me from work forty-eight hours. I think the addition of the nux vomica most useful in counteracting the depressing influence of the disease and the salicylates."

For diphtheria he recommends the trial of an old remedy, viz., chlorin in solution. "I have used it now some years for diphtheria and sore-throats, and have not had a death. Last year a woman and four children were attacked in one house; two children first attacked were dead before medicine could reach them; the others did very well, and recovered without any sequelæ." He uses potass. chlor. gr. 40, acid. hydrochlor. fort. ℥ 40. Put the powder in a dry bottle, add the acid, cork, and shake well; when chlorin is evolved, add water gradually to eight ounces, shake, and add glycerin. In scarlet fever he recommends the treatment by perchlorid of mercury and biniodid (as recommended by Dr. Illingworth), added to inunctions of eucalyptus oil (recommended by Dr. Curgenvin), or some other antiseptic; this treatment is, in his opinion, the best and most likely to modify the disease and also the period of infectivity.

Dr. Clifford Allbutt, although Regius Professor of Medicine in Cambridge University, has not forgotten his Leeds experiences, according to which a large number of cases of irritation of the rectum, associated or not with hemorrhoids or fissure of the anus, are cured often at once by dilatation of the sphincter ani. What he advocates is not a mere passing of large bougies, but the introduction of the two thumbs of the surgeon into the orifice, under an anesthetic, of course, and the forcible separation of them until the muscle is felt to creak and give way under the strain. The degree of stretching so produced is no small one, and in the case of a toughened adult sphincter, may require something like the full strength of the operator. If any incontinence follow, it never lasts more than a day or two. The rationale of the condition which this operation so markedly relieves is probably that, as a result of irritation, a spasm of the muscle is set up, which may persist after its cause has passed away, and may even lead to hypertrophy and degeneration of the muscle into a hard, comparatively-rigid fibrous ring. Dr. Allbutt also states that many cases of obstinate constipation, especially among women, are relieved by forcible bimanual dilatation of the sphincter ani.

Dr. Sutherland draws attention to the occurrence of scurvy among children. It is a food-disorder, being always associated with a deficient supply of sound fresh animal or vegetable products, and in many cases with the employment of a diet quite unsuited to an infant's digestive powers, and he says there is no doubt that the increase of scurvy among children during the last fifteen years is largely due to the recent extensive substitution of proprietary infants' foods for cows' milk or breast-milk and natural vegetable products. Probably

it would be still more common but for the fact that children so often get potatoes and fruit and that the antidote is thus supplied. The great mass of cases occur between the seventh and the twenty-fourth month. In most cases the disorder is associated with rickets, with the common signs of which its own symptoms are a good deal intermingled. There is an exaggeration of the listlessness and dislike to being moved, which is so common in that disease, but when subperiosteal effusion takes place there is intense pain in one or more limbs with complete loss of power in them. The thigh is the most commonly affected in this way, and the skin becomes tense and glistening, but not inflamed. The gums round such teeth as have been cut are swollen and tend to bleed, but are often merely pale in other parts. There is edema of one or both eyelids, or about the ankles, and there are often subcutaneous hemorrhages. The treatment is fresh milk, fresh fruit, and fresh vegetables. In small infants the juice of fruit, such as oranges, grapes, etc., may be squeezed into the milk. Sunlight and fresh air are useful, but the child must be kept in bed till the breathlessness due to the anemia is past.

Dr. Lauder Brunton, speaking of nervous, or so-called bilious headaches, draws attention to the importance of such a remedy as is required being taken early before the headache has completely taken possession; when a headache has once fully developed, absorption by the stomach is so completely checked that nothing but the hypodermatic injection of morphin does much good. This probably is the cause of the variability observable in the action of such remedies as antipyrin. In many cases, however, headaches give a warning of their coming, and then a dose of thirty grains of potassium bromid with from five to fifteen grains of sodium salicylate will often prevent their further progress. This warning is often a little irritability in the evening; in this case the dose should be taken then; and if, on awaking in the early morning, there should be the feeling of weight in the head which is the precursor of the undeveloped attack, the dose should be repeated or taken for the first time if that is the first indication; and a third dose may be taken in the morning. The great thing is to trust to the warning and get in the medicine before the attack develops. Dr. Brunton, however, emphasizes very strongly the great frequency of the causal relation of ocular defects of accommodation with nervous headache, between 80 and 90 per cent. being due to visual defects, about 10 per cent. to decayed teeth, and about 5 per cent. to disorders of the nose, throat, and other causes.

The continually advancing experience of the value of hygienic treatment of tuberculosis does not hinder men from seeking for some medicinal means of checking the development of the tubercle-bacillus within the body. For the last suggestion we are indebted to Dr. Vivian Poore, who has come to the conclusion that garlic not only ought to be, but is, curative in pulmonary tuberculosis. Inhalations of many substances have been tried, but it is very doubtful how far they are beneficial, except in alleviating cough; for not only is the vapor which can be inhaled very dilute, but the bacilli to be attacked lie within the tissues rather than on the surface. If an antiseptic is to do good it should be something which is

absorbed by the stomach, mingles with the blood-stream, and is eliminated by the lungs. The allyl compounds, such as allylic alcohol and oil of mustard, have been shown by Koch to be strongly antiseptic. It is well known that onions and garlic contain the active principle "allyl," which is largely excreted by the breath; and it seems not unreasonable to believe that a body such as garlic, which even in small quantities persistently taints the breath, might have some utility in pulmonary tuberculosis. Dr. Poore has found garlic of distinct service in cases of dilated bronchi with fetid expectoration, and although some people might say that esthetically there was but a change of smells, the point is that the fetor of decomposition disappears, showing that a distinct effect had been produced. But cases of undoubted tuberculosis have also been treated with garlic, with markedly beneficial results, one case of laryngeal tuberculosis in which the characteristic swelling was very obvious, showing a complete retrogression of the physical signs. Usually the garlic was given in the food, a "clove of garlic" being chopped up and boiled with the beef-tea, but it also can be administered as an extract enclosed in gelatin capsules.

FOOT-BALL AT WEST POINT.

To the Editor of THE MEDICAL NEWS,

SIR: At your request, I very gladly give you the facts which I stated on Tuesday night during the debate on foot-ball at the Contemporary Club. So far as I know, this is the first contribution giving an accurate comparative statement of the injuries from foot-ball, riding, and in the gymnasium, among the same class of men, with an analysis giving the percentages.

It is very evident that the actual number of accidents from riding, shooting, drowning, etc., is no guide as to the relative danger of these sports, unless we also know the actual number of persons engaged in each, and from these facts can deduce the percentages of danger.

With the kind consent of Surgeon-General Sternberg, of the U. S. Army, I addressed a letter to Major P. F. Harvey, the Post-Surgeon at West Point, and received from him the subjoined table, giving the list of casualties and the number of men, the number of accidents, and the number of days lost. I should add that the percentages under each of the tables are additions of my own:

LIST OF CASUALTIES AMONG U. S. CADETS FROM SEPT. 1, 1893, TO NOV. 30, 1893, DUE TO FOOT-BALL AND INSTRUCTION IN RIDING AND GYMNASIUMS.

Foot-ball.				Riding.	Gymnasium.	Remarks.
Sprains.		Contusions and lacerations.	Fracture both bones of leg.	Injuries of all kinds.	Injuries of all kinds.	
Severe.	Slight.					
4	32	17	1	17	9	Injuries in riding and gymnasium usually very slight.

I. Number of Men.

Number of Foot-ball players (approximate)	34
" under instruction in Riding Hall	184
" " " Gymnasium	106

II. Number of Accidents.

Foot-ball.	.	.	.	.	.	.	.	54
Riding	.	.	.	.	.	.	.	17
Gymnasium	.	.	.	.	.	.	.	9
Total	.	.	.	.	.	.	.	80

Percentage: $54/34 = 1.6$ per man in foot-ball.
 $17/184 = 0.09$ " " in riding.
 $9/106 = 0.08$ " " in gymnasium.

III. Days Lost.

From foot-ball accidents.	.	.	.	.	.	.	.	277
" injuries in riding	.	.	.	.	.	.	.	57 ¹
" " " gymnasium	.	.	.	.	.	.	.	11

A. Percentage of days lost per man engaged in playing:

$277/34 = 8.01$ men in foot-ball.
 $57/184 = 0.31$ " in riding.
 $11/106 = 0.15$ " in gymnasium.

B. Percentage of men off duty per diem:

$277/90 = 3.01$ men in foot-ball.
 $57/90 = 0.63$ " in riding.
 $11/90 = 0.12$ " in gymnasium.

C. Percentage of days lost per accident:

$277/54 = 5.01$ days in foot-ball.
 $57/17 = 3.04$ " in riding.
 $11/9 = 1.02$ " in gymnasium.

1. *Percentage of accidents.* From the table the following deductions may be made: First, the *percentage of accidents per man* playing in the place, and for the season to which this table refers, was *twenty times as frequent in foot-ball* as in riding or in gymnastics ($1.6 :: 0.09 :: 0.08$, II).

2. *The number of days lost from foot-ball accidents per man playing* is *twenty-six times as much in foot-ball* as compared with riding, and *over fifty times* as much as from gymnastics ($8.01 :: 0.31 :: 0.15$, III A).

3. *The number of days lost per man injured* is 5.01, 3.04, and 1.02 (III C), showing that the foot-ball accidents in the table were nearly *twice* as serious as those from riding, and *five times* as serious as those from gymnastics.

4. *Number of men continuously off duty.* There were *five times* as many men off duty per diem from foot-ball accidents as from riding accidents, and *twenty-five times* as many as from gymnastics ($3.01 :: 0.63 :: 0.12$, III B). It must be remembered, also, as Dr. Harvey says in his letter, that "in addition to the cases enumerated, there were, of course, others which were either very slight or temporary, or failed to come under observation on account of pride," etc. This, however, is an observation which would probably apply equally well to any of the other accidents. It may be added also that the relative proportion between foot-ball and riding accidents is much more unfavorable to foot-ball, from the fact that twenty-seven days of the whole fifty-seven lost in riding were due to a single case, leaving therefore thirty days to be divided among the other sixteen accidents from riding. And when one considers the "dare-devil" character of the riding at West Point, it seems to me that the liability to accident would be perhaps greater there than among those who ride more quietly. On the other hand, however, we must remem-

ber that the West-Point riders are among the best trained and most competent in the country, and hence accidents would be comparatively few, perhaps less than among the general public.

It may be objected that any inferences drawn from one period of only three months might well be erroneous. I do not know whether records are kept at West Point of the casualties of several years past, but I have written to inquire. Certain it is that any disproportion within the limits of a normal law of variation cannot be said, it seems to me, to account for the fact that the accidents in foot-ball, both in number and in character, as compared with those from riding and gymnastics, were so much more frequent and serious.

My own opinion, as a surgeon who has seen a large number of accidents, is that foot-ball, as played at present, is a needlessly dangerous sport. The price paid for the good it does is too high, both in life and limb. Strip it of its needless dangers, and no one would be a more hearty advocate of the game than I. This revision of the rules to eliminate its dangers must be made by foot-ball men themselves. If they do this the game will hold its present place in the esteem of all who value manly and invigorating sport. If they do not, then it should be prohibited, at least in our colleges where the faculties have the power to do so. Prohibit it there, and it will be doomed to an "innocuous desuetude."

Very respectfully yours,

W. W. KEEN.

1729 CHESTNUT STREET, PHILADELPHIA, February 15, 1894.

AN HISTORIC CASE.¹

A Case of Extra-uterine Fetus, described by Mr. John Bard, Surgeon at New York, in a Letter, dated 1759, to Dr. John Fothergill.

MRS. S., the wife of a mason, about twenty-eight years of age, having had one child without any uncommon symptoms, either during her pregnancy or labor, became, as she imagined, a second time pregnant. She was more disordered in this than in her former pregnancy, frequently feverish, the swelling of her belly not so equal, nor the motion of the child so strong and lively. At the end of nine months, when she expected her delivery, she had some labor pains, but without a flow of waters or any other discharge. The pains soon went off and the swelling of her belly grew gradually less; but there still remained a large, hard, indolent, movable tumor, inclining a little to the right side. She had a return of her menses, continued regular five months, conceived again, and enjoyed better health; the swelling of her belly became more equal and uniform, and, at the end of nine months, after a short and easy labor, she was delivered of a healthy child. The tumor on the side had again the same appearance as before her last pregnancy. Five days after delivery she was seized with a violent fever, a purging, suppression of the *lochia*, pain in the tumor, and profuse fetid sweats. By careful treatment

¹ 27 days of this, in one case, due to kick of horse on shin, causing periostitis.

¹ This communication was read in London on March 21, 1760, and has been kindly furnished by Dr. F. G. Devereux, of Kezar Falls, Maine. The transcription was made from an old medical volume published in London in 1762, and was suggested by the Address of Dr. McMurtry, published in THE MEDICAL NEWS of February 17, 1894.

these threatening symptoms were in some measure removed; but there still remained a loss of appetite, slow hectic fever, night-sweats, and a diarrhea. To the tumor, which continued painful and gradually increased, were applied fomentations and emollient poultices; and at the end of nine weeks I perceived so evident a fluctuation of matter in it, that I desired Dr. Huck, physician to the army, to visit this patient with me, and be present at the opening of it. From the whole history we concluded that we should find an extra-uterine fetus. I made an opening in the most prominent part of the tumor, about the middle of the *right rectus muscle*, beginning as high as the navel and carrying it downward. There issued a vast quantity of extremely fetid matter, together with the third phalanx of a finger of a child. Introducing my finger into the abscess I found an opening into the cavity of the abdomen by the side of the rectus muscle, through which I felt the child's elbow. I then directed my incision obliquely downward to the right ilium, and extracted a fetus of the common size at the ordinary time of delivery. The frontal, parietal, and occipital bones, as also the third phalanges of the fingers of one hand, separated by putrefaction, remained behind; which I also took out. We imagined the placenta and funis umbilicalis were dissolved into pus, of which there was a great quantity. By the use of fomentations and detensive injections, while the discharge was copious, fetid, and offensive, and by the application of proper bandages and dressing with dry lint only, when the pus became laudable, the cavity contracted, filled up, and was cicatrized in ten weeks. The source of the hectic being removed, with the help of the bark, elix. of vitriol, and a proper diet, she quickly recovered good health. Her milk, which had left her from the time she was first seized with the fever, returned in great plenty after the abscess was healed, and she now suckles a healthy infant.

I am, Sir, with great respect,

Your most humble servant,

JOHN BARD.

NEW YORK, December 25, 1759.

NEWS ITEMS.

The Medical Society of the State of Pennsylvania, at its last meeting, appointed a Committee on Scientific Business, consisting of Drs. Dulles, of Philadelphia; Gorgas, of Harrisburg; LeMoyne, of Pittsburg; Tyson, of Philadelphia; and Towler, of Marienville, "To secure scientific papers, and to provide scientific discussions for each annual meeting, and to coöperate with the Committee of Arrangements and Credentials in arranging the program." The object of this innovation is to have a permanent committee which, becoming familiar with the subject, shall find it easier to secure good scientific work than is possible for a committee that is appointed new every year.

The Committee hopes that each member of the State Society will aid it in attempting to make the meetings of the Society of greater scientific importance than they have been in the past. To this end the Committee will welcome suggestions from any member of the Society, and especially, at this time, offers of contributions to the work of the next meeting, at Gettysburg, from May 15th to 18th. It is desired that there should be as many brief,

concise, practical papers as possible, and it is proposed to have a discussion on Tuberculosis, devoting the morning to "Medical Tuberculosis," and the afternoon to "Surgical Tuberculosis."

Any communication from members of the Society in regard to the work of the Committee will be welcomed.

Members of the Society desiring to read papers, or to take part in the discussion on Tuberculosis, will please notify the Chairman of the Committee, Dr. Charles W. Dulles, 4101 Walnut Street, Philadelphia.

The American Medical Association.—Arrangements are in progress providing for a special train of Pullman cars, including dining accommodations, leaving Omaha and Denver during the last week in May, by way of the Union Pacific Railroad, stopping at Salt Lake City, and reaching San Francisco in time for the meeting of the American Medical Association. The return trip may, if desired, be made by steamer via Portland and the Oregon Short Line. An endeavor will be made to have the rates of fare even lower than those specially made for the Mid-winter Fair.

The excursion will be in charge of Dr. George Wilkinson, of Omaha, Secretary of the Nebraska State Medical Society, and editor of the *Omaha Clinic*, who will be glad to receive suggestions or give additional information to those who may desire it.

Eleventh International Medical Congress.—Prof. H. J. Johnston-Lavis, 7 Chiatamone, Naples, desires to inform American attendants upon the Eleventh International Medical Congress that he will be pleased to aid and advise them during their stay at Naples.

Il Policlinico is the title of a new Italian journal published twice a month, and under the editorial care of Dr. Guido Baccelli and Dr. Francesco Durante.

BOOKS AND PAMPHLETS RECEIVED.

Ueber den Einfluss des Quecksilbers auf das papulöse Syphilid. Von Dr. Unna. Sonder-Abdruck aus der Berliner klin. Wochenschrift, 1892.

Mundpflege und Kali Chloricum. Von P. G. Unna. Sonder-Abdruck aus Monatshefte für praktische Dermatologie, 1893.

Entzündung und Chemotaxis. Von P. G. Unna. Sonder-Abdruck aus der Berliner klin. Wochenschrift, 1893.

Die Diaskopie der Hautkrankheiten. Von P. G. Unna. Sonder-Abdruck aus der Berliner klin. Wochenschrift, 1893, No. 42.

The Meaning of Vital Movements. By H. A. McCallum, M.D. Reprinted from the Canadian Practitioner, 1893.

Three Kinds of Favus. By P. G. Unna. Reprinted from the British Journal of Dermatology, No. 43, vol. iv.

A New One-stroke Double-tincture for Leprosy and Tubercle Bacilli. By Dr. P. G. Unna. Reprinted from the Sheffield Medical Journal, 1893.

Inflammation and Chemotaxis. By Dr. P. G. Unna. Translated by C. Bernard Wolff, M.D. Reprinted from the St. Louis Medical and Surgical Journal, 1893.

Artificial Opening of Pulmonary Cavities, Insertion of Rubber Tube, and Injection of Chlorine Gas. By E. L. Shurly, M.D. Reprinted from the Journal of the American Medical Association, 1893.

A New Series of Test-words for the Determination of the Power of Accommodation. By Charles A. Oliver, M.D. Reprinted from the Archives of Ophthalmology, 1893.

A New Series of Test-types. By Charles A. Oliver, M.D. Reprinted from the Archives of Ophthalmology, 1893.